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SS-01

Effect of Biochemical parameters on nutrients intake in the first 6 months following sleeve gastrectomy

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The World Health Organization (WHO) defines the weight gain and obesity as an abnormal or excessive fat accumulation in the body to the extent that it will cause impairs in the human body. Over the world, the prevalence of overweight and obese individuals is constantly increasing. Obesity is becoming an ever-increasing public health problem, leading both overweight and obese individuals and specialists to seek treatment. This thesis aims to determine the possible nutrient and protein deficiency in the first 6 months after sleeve gastrectomy (SG) and to determine its effect on biochemical parameters. This study was an intervention study in 102 patients who had undergone SG and followed by a registered dietician for at least 6 months postoperatively. The sample of the study includes the patients who are aged 18–65 and applied to Şişli Florence Nightingale Hospital General Surgery policlinic between 13/07/2017-06/01/2018, who had surgery approval by the doctor and continued dieticians follow-up for at least 6 months postoperatively. Anthropometric measurements, 3-day food intake, and biochemical findings were followed pre-operatively and during the first 6 months. There was a 27.4% decrease in body weight in the first 6 months after surgery. The decrease in the body weight and body fat ratio and decrease in BMI were found significant ($p<0.05$). Dietary intake of calcium, iron, zinc minerals, folate, B1, D and C vitamins cannot be provided by diet; phosphorus, vitamin B12 and dietary cholesterol are above the requirement. The difference in serum total protein levels between 6 months of treatment and the patients who did not use whey protein powder in the first month after SG was significant ($p<0.05$). It should be noted that post-operative multidisciplinary team and regular follow-up are necessary for patients to regulate their lifestyle and for their obesity treatment to be sustainable.

Key words: Bariatric surgery, nutrition, sleeve gastrectomy.

SS-02

The effect of teff seed consumption on weight loss and health in adults

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Introduction: Teff seed is a grain whose consumption has become widespread in the world and Turkey in recent years. It is preferred because of its superior nutrient content and gluten-free properties. It is thought that teff seed can provide weight loss, has positive effects in improving and preventing on iron deficiency anemia, and may increase glucose tolerance. This study was conducted to investigate the effect of teff seed on weight loss and health in humans.

Material and Methods: The study was carried out on 27 people aged between 18–55 with a BMI of 25–35 kg/m^2 living in the cities of Istanbul, Edirne and Kocaeli. There were 14 subjects in the intervention group and 13 subjects in the control group. Isocaloric diets, with and without teff seed, were planned for 3 months. The questionnaire and three-day food consumption record were obtained from the individuals before the study. Body weight changes were recorded in the second week, first month and third month after the diet. Blood biochemical findings were recorded at the beginning and end of the study. SPSS 20 was used for statistical analysis. Results were within 95% confidence interval and $p<0.05$ level of significance; the results of correlation analysis were evaluated at $p<0.01$ level.

Results: No statistically significant difference was found between the intervention and control groups in terms of weight loss, serum iron level, HbA1c and fasting blood glucose level ($p>0.05$). There was a statistically significant difference between serum vitamin B12 levels of individuals ($p<0.05$).

Conclusion: As a result, it was found that teff seed had no superiority over Mediterranean diet on weight loss and clinical studies in large groups were needed to better understand its effects on health.

Key words: Grain consumption, Mediterranean diet, obesity, teff seed, weight loss.

Teff injera. Teff is the main grain used to make injera, a traditional pancake fermented in Ethiopia. Injera is made from fermented dough for 2–3 days. It is sometimes used to make flour, mash, kitta (unleavened bread) and mush. Various studies have shown that teff grains are superior to other grains in injera production because of their nutritional value and resistance to staling.

Weight changes of individuals in the second week, first month and third month

INTERVENTION GROUP	Weight loss (kg) (Mean±SD)
Second week	2.1±0.9
First month	3.7±1.0
Third month	7.4±2.4
CONTROL GROUP	
Second week	2.6±1.3
First month	4.4±2.0
Third month	8.1±3.2

No significant difference was found between the intervention and control groups in terms of weight loss of two weeks, one month and three months (p>0.05).

SS-03

Development of definition of kinoa, amarant, teff, plated meals specific to bariatric surgery and sensitive analysis of these features

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Prior to bariatric surgery, patients will consume the right amount of nutrients to achieve the desired body weight. Kinoa, amarant, teff, chai, which are high in nutrition, have recently increased consumption all over the world. These nutrients are thought to contribute to the feeding of bariatric patients. Whether the products are liked by the patients can be tested with sensory and hedonic analyzes. The aim of this study is to develop new recipes that will contribute to nourishment of patients after bariatric surgery and be appreciated by sensory and hedonic analyzes by patients. The study was conducted between September 2016 and August 2017. Recipes have been developed to provide dietary diversity according to the daily energy, carbohydrate, protein and fat requirements specified in the literature. In recipes, high nutritional values such as kinoa, amarant, teff and jia are used. The recipes were tested by 18 adult patients who underwent a bariatric surgery at least 6 months ago. As a test, sensory analysis method, hedonic scale test of face expression was used. Sensory evaluation is a test technique used to develop new recipes and increase the quality of existing recipes. The facial expression hedonic scale test is a test that evaluates patients' preferences or likes/dislikes. In these analyses, the lowest possible score for the recipes was 6 and the highest score was 30. 17 descriptions have been developed in the study. 6% of the recipes were moderate, 53% good, and 41% very good. The recipes include teff and amarant unu and kinoa. If the recipe contains sugar, it is in good range. The result is that the recipes are appreciated as image, aroma, taste and can add to the diet of the patients. After bariatric surgery, more tariffs are needed, appropriate for the consumption and feeding of the patients.

Key words: Bariatric surgery, teff, kinoa, amarant, sensitive analysis.

SS-04

Comparison of only nutritional training and cognitive behavioral therapy techniques on the effect of Body Mass Index and problematic eating behaviors in bariatric surgery patients

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Introduction: Obesity is becoming an increasingly common health problem. There are various treatment methods for obesity. Currently, one of the most commonly preferred treatment for obesity is bariatric surgery. However, it may not provide a permanent solution to the weight problem, since it only decreases the stomach volume, and dysfunctional thoughts and behaviors that causes obesity stay the same. Recently, Cognitive Behavioral Therapy (CBT) techniques are being used for obesity patients, in order to chance these dysfunctional thought and behaviors. The aim of this study was to compare the effects nutritional training and CBT techniques on Body Mass Index (BMI) and problematic eating behaviour of post-bariatric surgery patients.

Material and Methods: This study was conducted with 60 people who underwent bariatric surgery. The subjects were divided into two groups: (1) Only nutritional training (ONT) (n=30); this group received 8 sessions of nutritional training (first 5 sessions were conducted once in 2 weeks, last three sessions were conducted monthly. Sessions were 30 minutes long); (2) Nutritional training + CBT group (NT + CBT); this group received 8 sessions of nutritional training (as described above) plus 8 CBT sessions (the frequency was as described above but the sessions lasted for 1 hour). All groups were matched for age, gender, and BMI. Participants were weighed before each session, and Emotional Eating Scale and Mindful Eating Scale were applied to participants at the beginning of 1st, 5th and 8th sessions.

Conclusion: Nutritional training after bariatric surgery, conducted alone or with CBT, was effective for decreasing the BMI. But adding CBT to nutritional training improved mindful eating and decreased emotional eating which are among the main behavioral problems in obese people. These

behavioral changes may cause a better outcome for bariatric surgery in the longer term.

Key words: Bariatric surgery, weight control after bariatric surgery, cognitive behavioral therapy, emotional eating, mindful eating, food addiction.

Table 1: Comparison of drop rates between groups

		ONT	NT + CBT	Total	P value
Not drop	Number of subjects	9	20	29	0,004*
	% within drop	31,00%	69,00%	100,00%	
	% within group	30,00%	66,70%	48,30%	
Drop	Count	21	10	31	
	% within drop	67,70%	32,30%	100,00%	
	% within group	70,00%	33,30%	51,70%	
Total	Count	30	30	60	
	% within drop	50,00%	50,00%	100,00%	
	% within group	100,00%	100,00%	100,00%	

**Chi-Square Test.*

Table 2: Comparison of BMI, scores from Emotional Eating Scale and Mindful Eating Scale between groups and between 1st, 5th and 8th sessions

		ONT n=9			NT + CBT n=20		
		Mean	Standard deviation	P value	Mean	Standard deviation	P value
BMI	1st session	26,6	3,8013	0,004*	31,02	3,7509	0,000*
	5th session	26,278	3,4705		30,34	3,7416	
	8th session	25,511	3,3799		29,44	3,6563	
	1st-5th sessiona			1			0,207
	1st-8th sessions			0,007*			0,000*
	5th-8th sessions			0,029*			0,004*
Emotional Eating	1st session	80,44	34,594	0,074	81,15	28,561	0,000*
	5th session	71	28,853		68,65	25,697	
	8th session	65,444	34,1471		60,565	23,739	
	1st-5th sessions						0,034*
	1st-8th sessions						0,000*
	5th-8th sessions						0,119
Mindfull Eating	1st session	92,22	21,632	0,097	90,45	15,969	0,000*
	5th session	95,44	16,719		102,6	16,21	
	8th session	102,44	14,423		108,6	12,365	
	1st-5th sessions						0,013*
	1st-8th sessions						0,000*
	5th-8th sessions						0,098

**Comparison between sessions 1–5, 1–8, 5–8 was performed by the Friedman test.*
**Comparison between sessions 1st, 5th, 8th sessions were performed by the Friedman test.*

SS-05

Our postoperative early service follow-up approaches in morbid obesity surgery

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Introduction: In this study, we present the data and follow-up of 3882 patients who underwent sleeve gastrectomy, gastric bypass, gastric banding and revision surgery.

Material and Methods: Between January 2008 and June 2019, 2618 patients underwent sleeve gastrectomy, 961 patients underwent gastric bypass, 303 patients underwent gastric banding, and 132 patients underwent revision procedures. Age, sex, body mass index, early vital signs and hospital stay were retrospectively analyzed.

Results: The mean age of the 3882 patients included in the study was 39.6 (16–71 y). The number of female patients was 2639 (68%) and the number of male patients was 1243 (32%). The mean body mass index was 47.2 kg/m^2 (35.7–71). Routine peroperative leak test with air-fluid and methylene blue was performed in all patients. All patients were followed up in the intensive care unit for 4–6 hours postoperatively. All patients underwent postoperative complete blood analysis, drain monitoring, O_2 saturation monitoring, urine monitoring and patients with stable vital signs were admitted to the service. Mobilization of the patients was achieved after 6–8 hours. After 24 hours, leakage test was performed with methylene blue and fluid was started. The second day was followed by ayran and the third day with non-granulated soup. Day 3 drains were taken according to the quantity and nature of the drains. Five patients were transferred to intensive care unit because of respiratory distress and bleeding in the postoperative period. Eight patients underwent blood transfusion over 3 units. One patient was reexplored on the second postoperative day. The mean hospital stay was 3.1 days. We had no mortality.

Conclusion: Morbid obesity surgery and early postoperative patient follow-up are characteristic due to co-morbid problems of the patients. A high number of patient follow-up increases the recognition of early problems and the success in effective treatment.

Key words: Obesity, surgery, postoperative.

SS-06

The effect of mid-intensity aerobic and progressive resistance 12-week exercise protocol applied post-operative bariatric surgery on physical function and body composition

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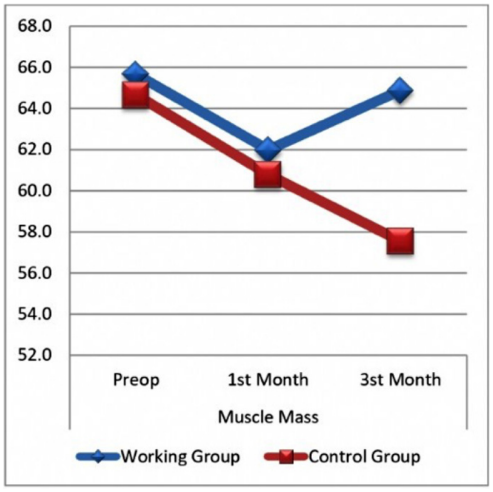
Although bariatric surgery has been commonly used in the treatment of obesity and related comorbidities in recent years and its effectiveness is accepted by scientific institutes, it is almost impossible to obtain and maintain the desired result unless post-operative change is made with a multi-

disciplinary approach. Two different home-based-exercise programs were applied to 35-obese patients (BMI ≥30 kg/m^2) for 12-weeks and their effect on body composition and functional capacity was compared. Patients were evaluated for three-times in total: Pre-operative and post-operative 1st and 3rd months. The participants were divided into two as the aerobic-exercise (Control-Group) and aerobic-progressive-resistance-exercise (Working-Group). 6MWT was applied to determine the functional capacity, hand-grip strength was applied to evaluate the upper extremity muscle-strength and 5-Times-Sit-to-Stand-Test was used to determine muscle-strength in the upper extremity. In addition, anthropometric measurements, blood parameters and the international physical activity questionnaire (IPAQ-short) for follow-up of physical activity and mood state, Beck's Depression Inventory as well as the impact of weight on quality of life (IWQOL-Lite) questionnaire was implemented. Compared to the CG, the WG showed a statistically significant increase in total body muscle-mass, liquid-mass and bone-mass as well as a 1.8kg more weight loss ($p<0.05$). In the WG, mean values significantly increased after 6MWT. Mean difference between 5-Times-Sit-to-Stand-Test scores of the two-groups wasn't statistically significant ($p>0.05$). Compared to the CG, the WG showed statistically significant increase in the muscle strength of the upper extremity ($p<0.05$) and the blood uric acid levels were observed to be lower at the end of the evaluation ($p<0.05$). Data obtained from the evaluations indicate that exercise created a positive correlation on general state of health and aerobic-progressive-resistance-exercise paves the way for evident improvement in functional capacity rather than aerobic-exercise. In addition, it was detected that progressive-resistance-exercise is effective in increasing muscle mass and that home-based-exercise program can be achieved by strict follow-up.

Key words: Bariatric surgery, body composition, exercise, functional capacity, obesity.



Muscle Mass Graph of the Working Group (Aerobic & Progressive Resistance Exercise) and the Control Group (Aerobic Exercise)

BMI and Weight Characteristics of the Working Group (Aerobic & Progressive Resistance Exercise) and Control Group (Aerobic Exercise)

		Working Group		Control Group	
	Mean ± s.d.	Median	Mean ± s.d.	Median	p
Height (cm)	165.4 ± 11.2	163.0	167.2 ± 9.1	168.0	0.608t
BMI					
Preoperative	45.0 ± 7.5	43.2	41.4 ± 6.1	41.7	0.127t
1st month	40.5 ± 7.0	39.6	37.0 ± 5.9	37.6	0.119t
Preoperative/1st Month Change p	0.000 M		0.000 M		
3rd Month	35.9 ± 6.0	34.6	33.3 ± 5.0	33.1	0.174t
Preoperative/3rd Month Change p	0.000 M		0.000 M		
Weight					
Preoperative	122.4 ± 18.5	120.7	115.2 ± 15.6	116.6	0.222t
1st month	109.9 ± 16.8	107.6	102.9 ± 14.8	103.5	0.196t
Preoperative/1st Month Change p	0.000 M		0.000 M		
3rd Month	97.4 ± 13.7	96.9	92.4 ± 12.3	94.6	0.272t
Preoperative/3rd Month Change p	0.000 M		0.000 M		
t test / M matched sample test					

SS-07

Long-term results of structured training and counseling given to bariatric surgery patients

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Introduction: The study aims to prospectively assess two patient groups receiving standard care and structured training and counseling (STC), in whom sleeve gastrectomy (SG) was implemented, according to eating characteristics, physical activity levels, and weight loss.

Material and Methods: This pretest-posttest, repeated measures, randomized control experimental study was conducted between March 2017 and July 2019. Twenty-two of the patients undergoing laparoscopic SG (control) received standard care, while 22 (intervention) had STC starting before the operation and lasting for 6 months following it. The program included six training sessions and phone counseling. The measurements were performed at 6 and 24 preoperative and postoperative months.

Results: The mean age was 37.80±11.63, 79.5% were females and 65.9% had high school education or above. The groups showed no differences in daily protein consumption, regular vitamin use, snacking, daily water consumption before-after operation, and the number of snacks and main meals ($p>0.05$). In the follow-up at 6 and 24 postoperative months, the intervention led a more active life than the control with higher scores of vigorous activity and walking ($p<0.05$). Weight regain was not different ($p>0.05$) between the intervention (4 patients, 4.75±0.96 kg) and control (8 patients, 6.75±2.25 kg). The decrease in Body Mass Index (BMI) values at 6 and 24 postoperative months was in favor of the intervention ($p<0.05$). While

the amount of excess weight lost and total weight was in favor of the intervention in the first 6 months ($p<0.05$), the groups showed no differences at month 24 ($p>0.05$). A significant difference existed ($p<0.05$) in terms of the desired and achieved weight change (I= 9.50±7.56 kg, C= 19.43±15.47 kg). Satisfaction level was higher in the intervention ($p<0.05$).

Conclusion: STC does not affect excess weight lost and total weight in bariatric surgery patients in the long term, but positively affects BMI changes and physical activity level.

Key words: Bariatric surgery, counseling, physical activity, Structured training.

SS-08

Evaluation of obesity surgery cases in terms of malpractice

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Obesity is defined as increase of body fat ratio over normal values. The most risky patients are with the body mass index over 40 kg/m^2 and defined as morbid obese. Although the first step treatment is diet and changing the lifestyle habits, it is known as the gold standart treatment is surgery. Bariatric surgery is known as the abbreviatory of mortality due to obesity, but at the same time there may be deaths due to complications. In this study, our aim is to support a forensic medical viewpoint in terms of malpractice in bariatric surgery cases and helping to decrease mortality in these cases by raising awareness of clinicians. In this study, the statistics of 20 parameters are "age of the patient, existence of city, in which the claim is done, the body mass index, the type of surgery, the complications after surgery, the management of the complications, reoperation situation, undergone operations, the autopsy report, the existence of the council opinion" are evaluated in bariatric surgery cases which are asked the cause of death and the existence of malpractice to the 8th department of the Turkish Council of Forensic Medicine in last 1 year. In this study, 12 reports of deaths due to bariatric surgery throughout the Turkey that are asked the existence of malpractice in 5 males (41.7%) and 7 females (58.3%) cases of 8th department of the Turkish Council of Forensic Medicine. It is found that are 9 cases which are decided as having malpractice. The most seen malpractice is found as in insufficiency complication management. In view of the high rates of complications after bariatric surgery, the results of this study shows the importance of complication management for preventing mortality.

Key words: Bariatric surgery, malpractice, complications management.

SS-09

Anesthesia awareness during bariatric surgery

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Introduction: Bariatric surgical procedures are increasing rapidly. There are no definitive guidelines for dose adjustment of intravenous anesthetic agents in obese patients. Anesthesia awareness is a rare entity (1/15000) and the most common cause is superficial anesthesia. Propofol, a highly lipophilic substance, is widely used in general anesthesia induction. In normal-weight patients, propofol is recommended to be administered according to total body weight, whereas in obese patients it is based on lean body weight (Janmahasatian equation). Whether these practices are safe and sufficient remains controversial.This might be the first study on anesthesia awareness in bariatric surgery.

Material and Methods: Between 2013–2019, 800 patients (56.5% female) with a mean body mass index (BMI) of 43.7±7.3 underwent bariatric surgery. Patients data were prospectively recorded and analyzed retrospectively.

Results: Anesthesia awareness was seen in 3 patients (2 males) who underwent sleeve gastrectomy (0.0038%). The first patient was a 41-years-old woman (BMI 40 kg/m^2) who expressed that she was awake after anesthesia induction, heard everything spoken during surgical preperation. She said she wanted to alert but she wasn't able. The other patients were two men aged 40-years-old (BMI 46 kg/m^2 and 44 kg/m^2). The experience of both was similar. They expressed they were awake, heard the talk, felt the trocar entrances, surgical manipulations, had serious pain, and that nightmare lasted for 10–15 minutes. There were no findings suggestive of anesthesia awareness in all three patients. Postoperative long-term psychotherapy support was provided to male patients due to trauma.

Conclusion: Many factors affect the pharmacokinetic of anesthetics in obese patients. Anesthesia techniques that work well for patients of normal weight may not be safe and appropriate for obese patients. In this respect, the use of devices showing the depth of anesthesia such as bispectral index (BIS) in bariatric surgery may be more appropriate for anesthesia safety.

Key words: Bariatric patients, general anesthesia, anesthesia awareness.

SS-10

Comparison of mortality and morbidity in obese patients undergoing open heart surgery

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Introduction: In this retrospective study, it was aimed to retrospectively evaluate obese patients and non-obese patients undergoing open heart surgery between 18 September 2018 and 17 September 2019, in the cardiac surgery operating room of Istanbul University-Cerrahpaşa, Cardiology Institute.

Material and Methods: The study included 178 patients who underwent open heart surgery, operated by the same team of surgeons. All data were obtained from patient follow-up forms of Anesthesiology and Reanimation, patient files and nurse observation forms. For the patients who were included in the study; postoperative morbidity, mortality and postoperative ICU requirements were evaluated. Other aims of this study were to determine the factors affecting mortality, morbidity and ICU requirements, and to investigate the effect of obesity on these factors. For statistical analysis of the data, Mann Whitney, Chi-square and Spearman correlation analysis were used. P<0.005 was considered statistically significant.

Results: When the groups were considered by age, cross-clamp time (min.), total bypass time (min.), ICU stay (day), gender and mortality; there was no statistically significant difference between BMI <30 group and BMI >=30 group.

Conclusion: It has been found that cardiac surgery in obese patients does not differ from non-obese patients in terms of mortality and morbidity. Surgery can be performed safely.

Key words: Obesity, mortality, morbidity,cardiac surgery.

Table 1: Information about obese and non-obese patients

BMI<30	AVG	STANDART DEVIATION (SD)	MEDIAN
Age	61,92	9,34	62,00
Weight	74,39	9,66	75,00
Height	169,03	8,25	170,00
BMI	26,00	2,44	26,26
Cross-clamp time (min.)	88,81	35,84	83,00
ByPass time (min.)	147,46	64,73	139,00
Period of hospitalisation (day)	3,47	4,14	2,00
BMI>30	AVG	STANDART DEVIATION (SD)	MEDIAN
Age	58,77	10,14	59,00
Weight	92,47	17,38	90,00
Height	166,64	13,08	165,00
BMI	33,15	3,43	32,00
Cross-clamp time (min.)	88,28	34,22	85,00
ByPass time (min.)	143,00	43,33	144,00
Period of hospitalisation (day)	4,32	7,15	2,00

SS-11

Morbidity evaluation of morbid obese patients followed in intensive care unit

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Introduction: The increase in prevalence of morbid patients observed in recent years has been effective in changing the diagnostic and treatment modalities inICU. Morbid patients are associated with comorbid diseases. Pulmonary, cardiac and renal pathologies are more common than non-obese patients. Invasive mechanical ventilation management, advanced hemodynamic monitoring and drug doses leave clinician in dilemma in obese patients. However, despite this dilemma, obesity mortality is low in some studies.

Case 1: A 56-year-old female patient with HT, DM, Asthma BMI=74.22kg/ (Obese-Class-III) was intubated from emergency department due to respiratory distress, SpO_2: 61%, PCO_2: 85, PO_2: 183, sedated, respiratory acidosis, dopamine infusion. Mechanical ventilator support therapy and antibiotic therapy were arranged, dopamine was stopped and noradrenaline infusion was started. Patient was extubated after intermittent CPAP treatment on 4th day of hospitalization with improved respiratory parameters and blood gases, improved lung film and clinic, recovery after sedation, and conscious recovery. After extubation, the patient was mobilized at 2-day follow-up and transferred to the chest diseases service with a home-type CPAP device.

Case 2: A 61-year-old female patient with HT, DM, COPD, BMI=68.68 kg/m^2 (Obese-Class-III) was admitted for acute respiratory failure. Patient's blood gas was PCO_2: 110 and

acute exacerbation of COPD was detected. The patient was intubated from the emergency department, but was extubated on the 2nd day following the unconsciousness. One month follow-up revealed GCS: 15.6*1CPAP. PCO_2 in blood gases did not fall below 100, but there was no change in consciousness. The patient was mobilized on the 15th day of hospitalization. CO_2 could not be taken to the service because there is a drop. During his hospitalization, diuresis was normal, consciousness was open, lung film was normal and hemodynamics were stable.

Conclusion: Our primary aim is difficulties of obese patients in ICU follow-up, and second is to discuss specific treatment of obese patients. More detailed studies are needed for the results of obese patients inICU follow-up and treatment.

Key words: Intensive care unit, morbid obese, morbidity.

SS-12

Differences between depression, anxiety and eating attitude of obese patients before and after bariatric surgery

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Introduction: Apart from psychological problems such as depression and anxiety, obese individuals also have impaired eating attitudes. The aim of this study was to evaluate the distribution of depression, anxiety and eating attitudes in obese individuals before sleeve gastrectomy surgery was evaluated in the first postoperative year.

Material and Methods: 116 patients (77 female and 39 male) with a BMI greater than 35 kg/m2 were included in this study. Data were collected using the Beck Depression and Anxiety Scale, the Arizona Sexual Experiences Scale (ACTS), and the Eating Attitude Test (YTT-40).

Results: The results were analyzed in SPSS 22 and are shown in the table below. There were 83.6% deterioration in preoperative eating attitudes while it decreased by 9.5% in the first year. The rates of depression and anxiety was 69.8% (normal depression) and 81.9% (no anxiety) at the end of the first year, respectively.

Conclusion: According to the findings, it was determined that there was a positively significant difference at depression, anxiety and eating attitudes between the preoperative and postoperative 1st year in obese individuals.

Key words: Sleeve gastrectomy, depression, anxiety, eating attitudes.

SS-13

The effect of psychology on weight loss in sleeve gastrectomy

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Introduction: Psychological status is related to elements such as eating frequency, food and quantity selection. Therefore, the psychological condition has an effect on weight loss. The aim of this study is to determine whether there is an effect on the amount of weight loss in case of any psychological disorder of individuals who will undergo obesity surgery.

Material and Methods: The study was conducted with 80 sample of obesity patients between February 2018 and August 2019. Patients were divided into four groups as 20 people. The extreme values of patients' weight ratio were kept out of the study. Preoperatively, obese individuals tested out SCL-90.

1. Group: those who scored above the general value of 1.5 and received psycho-education,

2. Group: those who scored more than the general value of 2.5 and do not receive psycho-education,

3. Group: those who scored below the general value of 1.5 and did not receive psycho-education

4. Group: Control group those who do not receive testing and psychoeducation.

A comparative study was performed on pre-op weight and weight loss in the 6th month.

Results: All results were analyzed in SPSS 22 program. Post Hoc Tukey HSD was used to find out from which group the significant difference origination. Both were sig. value of .04 and .00 ($p<0.05$) test results were found to be significant difference between the first group and the fourth group.

Conclusion: Nowadays, psychological problems in obese individuals have a negative effect on both obesity and postoperative weight loss.

Key words: Psychological condition, sleeve gastrectomy, SCL-90.

Pair samples statistic

Paired Samples Statistics

		Mean	N	Std. Deviation
Pair 1	**Group 1**, test result given negative and psychoeducation	116,5700	20	14,01856
	6. month test result negative and given psychoeducation	82,9850	20	11,91701
Pair 2	**Group 2**, negative preoperative test result	125,5950	20	13,99908
	6. Month test result negative and psychoeducation not provided	113,3600	20	12,85148
Pair 3	**Group 3**, the test result is positive	100,9900	20	9,45265
	6. month test result positive and not given psychoeducation	70,8250	20	6,13033
Pair 4	**Group 4**, control group	118,5700	20	15,77116
	6. month Control group	86,7150	20	12,19440

As can be seen from the table, there is a significant difference between the groups as sig values .00 and .00 ($p<0.05$).

Sexual disorder rate

Preoperative sexual dysfunction

		Frequency	Percent	Mean	Std. Deviation
Valid	0-10 Normal	14	10,6	1,8939	,30909
	Above 11 deterioration	118	89,4		
	Total	132	100,0		

First year postoperative sexual dysfunction

		Frequency	Percent	Mean	Std. Deviation
Valid	0-10 Normal	104	78,8	1,2121	,41037
	Above 11 deterioration	28	21,2		
	Total	132	100,0		

SS-14

Sexual life of obese individuals after bariatric surgery

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Introduction: Obese individuals report sexuality in one of their problems. Therefore, it should be investigated whether bariatric surgery has positive effects on sexual life of obese patients. The aim of this study was to evaluate the sexual dysfunction and satisfaction of obese individuals before and after surgery.

Material and Methods: Between January 2018 and August 2019, 106 women and 26 men were included in this study. 132 patients who decided on sleeve gastrectomy were asked that whether they were satisfied with their sexual life before surgery and 1 year after surgery After the question, we applied the Arizona Sexual Experiences Scale.

Results: While preoperative sexual disorder rate is 89.4%, it decreases to 21.2% after surgery.

Conclusion: Obesity affects sexual life of patients. In the first postoperative year, we asked question about their sexual life again and applied the scale again. Improvement in postoperative sexual life shows that obese individuals do not realize their sexual life before and postoperative awareness occurs. All these results can be counted as the success of surgery.

Key words: Sexual life, awareness, Sleeve Gastrectomy, obese individuals.

SS-15

Investigation of life experiences of obese patients

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Introduction: This study aims to determine experiences of patients with obesity and their reasons for undergoing metabolic surgery.

Material and Methods: The present study is a qualitative phenomenological type research. The study seeks for answers of the questions such as what are the experiences of obese individuals on obesity, does individuals with obesity experience social isolation, what are the effects of obesity on obese individuals, and why individuals with obesity prefer undergoing a surgical procedure. The study population consisted of individuals who have been admitted to a private hospital in Istanbul for metabolic surgery. And, the study sample consisted of nine individuals with a body mass index of 30 and over and decided to undergo a metabolic surgery. The study was carried out using face-to-face interview method.

Results: Participants stated that they tried to diet many times without success before making a decision for undergoing metabolic surgery. All the participants stated that they experienced psychosocial problems in different ways. Some of them expressed their social isolation, such as “I cannot participate in social activities. I feel like people look at me,” “Some call me fat/chubby. They say you broke the seat, you could not pass from here”. And, they expressed how obesity affects them with statements such as “being obese affects me in terms of clothing and restriction of my movements”. Among the reasons for undergoing metabolic surgery, the statement “I had to. I see it as the last chance” was striking. And about the expectations after the surgery,”My self-confidence will definitely increase” was remarkable expressions.

Conclusion: It can be stated based on the data obtained in this study that individuals with obesity have negative life experiences, experience social isolation due to their excess weight, have limited clothing preferences, do not feel healthy and experience limitations in physical activity.

Key words: Life experiences of individuals with obesity, metabolic surgery, obesity.

SS-16

Investigation of factors affecting the quality of life of patients with bariatric surgery

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Introduction: To investigate the factors affecting the quality of life of patients undergoing bariatric surgery.

Material and Methods: The study was descriptive, cross-sectional, and correlational. Data were collected between September 2018 and July 2019 at a University Hospital General Surgery Outpatient Clinic. Data were collected by face - to - face interview method using Sociodemographic - Clinical Characteristics Form and Weight Effect on Quality of Life Scale. A total of 75 patients who were admitted to the outpatient clinic, who had been admitted for 6 months postoperatively were included in the study. Informed consent was obtained from all participants with ethics committee and institution approvals.

Results: 56.0% (n=42) of the patients were male, and 96.0% (n=72) had comorbid diseases. The mean age of the patients was 33.89±8.25 and the elapsed time after surgery was 11.31±5.19 months. The mean preoperative BMI was 49.56±4.66, postoperative BMI was 31.57±4.07 and the difference was 17.98±3.88. There was a statistically significant difference between the mean preoperative and postoperative BMI scores (p<0.001). The mean total score of the effect of weight on quality of life scale was 70.71±21.72. In the regression analysis examining the factors affecting the quality of life of the patients, the model was found to be significant. The factors in the model explained 43% of the quality of life. Postoperative time was found to have a significant effect on quality of life (β=-0.650, p=0.000)(Table 1).

Conclusion: Quality of life was reduced as elapsed time increased after bariatric surgery. Nurses and other members of the multidisciplinary team should support and monitor patients compliance to improve their quality of life after surgery. It is also important that health professionals educate patients on lifestyle changes after bariatric surgery.

Key words: Bariatric surgery, nursing, patients care, quality of life.

Factors affecting quality of life after bariatric surgery

	B	SH	β	T	p*
Constant	115.527	12.490		9.250	0.000
Postoperative time (months)	-2.717	0.383	-0.650	-7.099	0.000
Age	-0.312	0.257	-0.118	-1.211	0.230
Gender	-1.494	3.953	-0.034	-0.378	0.707
Marital status	3.367	4.083	0.076	0.825	0.412
Education level	-3.525	2.966	-0.115	-1.188	0.239
R	0.659				
R2	0.435				
F	10.605				
P	0.000				
DW	1.736				

**p<0.05 β: Beta R^2: Coefficient of Explanation DW: Durbin-Watson.*

SS-17

Abdominoplasty as the beginning of body contour after bariatric surgery

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It is known that after performing bariatric operations in the treatment of type 2 diabetes, contour imbalance becomes a problem, primarily concerning the abdominal area in the form of abdominoptosis. After classical abdominoplasty, 61 complications were stated (72.6%). In total lateral abdominoplasty, a total of 21 complications were recorded (25%). In mini-abdominoplasty, the development of 2 postoperative complications of the immediate postoperative period was noted. Results to analyze the frequency of post-operative complications per patient, we resorted to another assessment method, which is based on the percentage correlation coefficient. At the same time, postoperative complications in classical abdominoplasty were of a multipolar nature and were represented in the maximum quantity in the category I level. This in turn once again confirms the high morbidity of this surgical intervention and the close relationship of the developing postoperative complications with their chronology. Thus, the analysis of the proportional correlation of the correlation coefficients of postoperative complications in various abdominoplasty options allowed us to identify the categories of regularities of their chronological development between the types of abdominoptosis. In particular, the likelihood of postoperative complications after classical abdominoplasty is high in patients with postpartum and postoperative abdominoptosis. In the case of alimentary abdominoptosis, the identified changes are not regular between classical and

lateral abdominoplasty. This circumstance deserves special attention in connection with the possible features of changes in the tissue structures of the anterior abdominal wall during postpartum and postoperative abdominoptosis.

Key words: Bariatric operations, type 2 diabetes, abdominoptosis.

SS-18

Screening colonoscopy in batriatric patients: An update of the comparison between 40–49 versus 50–65 years old

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Introduction: Obesity and metabolic syndrome are risk factors for colorectal neoplasia (CRN) and colorectal carcinoma (CRC). The updated results of an ongoing prospective trial on screening colonoscopy (SC) in our bariatric patient population is presented. The incidences of CRNs and the distribution of metabolic parameters in two consecutive age groups were compared. To date, no previous data on SC in bariatric patients is available.

Material and Methods: Candidates for bariatric surgery >39 years of age, who were asymptomatic/average-risk for CRC were offered SC. 40–49 years old patients were informed about the experimental nature of their part of the study and those who gave written consent were enrolled. Colonoscopies were performed by the senior author. Smoking/drinking history, fasting blood glucose (FBG), insulin, c-peptide, triglyceride, high density lipoprotein, vitamin D, HbA1c and insulin resistance parameters were recorded. CRN rate and distribution of metabolic variables in 40–49 years old were compared with those in 50–65. Student's T and Chi-square tests were used as appropriate. P<0.05 was regarded as statistically significant.

Results: Between January 2014 – August 2019, 183 SCs were performed identifiying 54 patients with CRNs (29.5%). Including 2 carcinomas, 18 had an advanced CRN (aCRN) (9.8% aCRN and 1.1% CRC). CRN rate was 37.5% in aged 50–65, whereas 23.3% in aged 40–49 (p=0.05). Both cancers were in 50–65 group (2.5%). aCRN rates (8.7% in 40–49 versus 11.3% in 50–65) were similarly distributed (p>0.05). Metabolic parameters and smoking-drinking history distribution were equal between the groups except FBG and HbA1c as their mean levels are slightly higher in 50–65 group (p<0.05).

Conclusion: The results point out the necessity of SC in the preoperative workup of bariatric surgery candidates. Routine SC in 40-49 years old morbidly obese and/or MetS is surely warranted, and in the ≥50 years group, it must be enforced.

Key words: Screening colonoscopy, obese, metabolic syndrome, morbid obesity, colorectal neoplasia, colorectal cancer.

Distribution of demographics, adenoma status, and measured variables between the groups

	N=183	Age < 50, N = 103	Age ≥ 50, N = 80	p
Age (range)	49.2 ± 6.2 (40 – 66)	44.6 ± 2.8 (40 – 49)	55.1 ± 4 (50 – 65)	<.001
Male n (%) Female n (%)	84 (45.9) 99 (54.1)	46 (44.7) 57 (55.3)	38 (47.5) 42 (52.5)	.702
BMI (range)	43.4±6.2 (31.1-70.5)	42.9±5.8 (31.1- 57)	44.1 ± 7.6 (32.8-70.5)	.225
CRN n (%)	54 (29.5)	24 (23.3)	30 (37.5)	.050
aCRN n (%)	18 (9.8)	9 (8.7)	9 (11.3)	.668
CRC n (%)	2 (1.1)	0	2 (2.5)	.107
Smoking n (%)	71 (38.8)	46 (44.7)	25 (31.3)	.065
Alcohol n (%)	77 (42)	49 (47.6)	28 (35)	.100
MetS n (%)	136 (74.3)	77 (74.8)	59 (73.8)	.877
FBG	114.4 ± 42	107.4 ± 32.9	123.3 ± 50.3	.016
Insulin	21.4 ± 12.3	21.9 ± 13.4	20.8 ± 10.4	.521
HOMA-IR	6.2 ± 4.5	6.1 ± 4.9	6.2 ± 3.9	.908
HbA1c	6.2 ± 1.3	5.9 ± 1	6.5 ± 1.6	.009
C-peptide	3.6 ± 1.6	3.6 ± 1.54	3.6 ± 1.7	.720
Vitamin D	20 ± 12.8	18.6 ± 9.7	21.9 ± 15.8	.104
Tryglyceride	184.5 ± 120.3	189.6 ± 128.8	177.8 ± 108.4	.517
HDL	45.3 ± 12.9	44.2 ± 11.7	46.8 ± 14.2	.191

BMI: Body mass index; CRN: Colorectal neoplasia; aCRN: Advenced colorectal neoplasia; CRC: Colorectal carcinoma; MetS: Metabolic syndrome; FBG: Fasting blood glucose; HOMA-IR: Homeostatic model assessment for insulin resistance; HDL: High density lipoprotein.

SS-19

Determination of total antioxidant capacity and total oxidative stress changes after laparoskopik Sleeve Gastrectomy in obesity patients

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Introduction: Obesity is a condition that there is excessively and abnormally fat accumulation in the body. Increase in fat mass causes various comorbidities such as diabetes, hypertension, hyperlipidemia, and sleep-apnea syndrome along with fatness. Oxidative stress raise and antioxidant capacity decrease depending on fat tissue increase play a role in etiopathogenesis of these comorbidities. Bariatric surgery is the most effective method in the treatment of morbid obesity. Nowadays, laparoscopic sleeve gastrectomy (LSG) is the most frequently preferred method in bariatric surgery. The aim of this study is to research the effect on oxidative stress and total antioxidant capacity of the weight loss obtained by LSG.

Material and Methods: The patients who had LSG in our clinic between the years 2015 and 2016 were included in this

study. Blood samples were taken preoperative and postoperative 12th month from 75 patients who did not have comorbidity. The blood samples were kept in appropriate conditions after being prepared. Total antioxidant capacity (TAC) and total oxidative stress (TOS) levels were measured from these blood samples.

Results: While the average body mass index was 45.3 in preoperative stage, the average body mass index was 25.4 in postoperative 12th month. The patients averagely lost 97.6±14.6% (between 59.4 and 128.1 kg) of their excessive body mass at the end of a year. It was found that while the average TOS was 8.36±8.19 µmol H_2O_2 Eq/L and the average TAC was 1.25±0.21 µmol Trolox Eq/L in preoperative stage, the average TOS was 3.67±6.24 µmol H_2O_2 Eq/L and the average TAC was 1.36±0.20 µmol Trolox Eq/L in postoperative stage (for both of them $p<0.01$).

Conclusion: LSG causes decrease in TOS and increase in TAC along with loss of excessive body mass.

Key words: Obesity, sleeve, antioxidant, oxidative, laparoscopy.

SS-20

Improved liver enzyme profile following Sleeve Gastrectomy with transit bipartition in a patient with liver fibrosis

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Introduction: Fatty liver disease and other liver-related complications are widely observed in patients with obesity and type 2 diabetes mellitus (T2DM). We aimed to investigate the trends in liver function enzymes in a 59-year old male patient with biopsy-proven hepatic fibrosis (HF) who underwent sleeve gastrectomy with transit bipartition (SG+TB) for the treatment of T2DM.

Material and Methods: Alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase, gamma-glutamyl transferase (GGT) levels were assayed preoperatively, immediately after surgery, and on the postoperative first, second, and third days.

Results: Preoperative levels of liver function enzymes were high in the patient with HF. There were significant improvements in the levels of liver function enzymes immediately following the surgery. ALT and AST levels were reduced into the reference values, and remained in normal range until discharge. ALP and GGT levels followed a decreasing trend.

Conclusion: Metabolic surgery is known to improve a variety of metabolic and functional markers alonside glycemic parameters. SG+TB resulted in decreased liver function parameters, suggesting a fast improvement of liver impairment. A close and long-time follow-up of patients with similar conditions may provide insights into better understanding of the effects of SG+TG on liver functions.

Key words: Cirrhosis, liver enzymes, liver fibrosis, transit bipartition.

Pre- and postoperative liver enzyme levels of the case

	Preoperative	Postoperative 4th hour	Postoperative 1st day	Postoperative 2nd day	Postoperative 3rd day
ALT (U/L)	115	84	72	64	51
AST (U/L)	89	71	58	41	32
ALP (U/L)	175	140	115	111	109
GGT (U/L)	856	672	579	528	498

SS-21

Effect of rapid body weight loss on balance and functional mobility in obese individuals after laparoscopic adjustable gastric banding operation

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Introduction: Sudden change in the obese individuals' weight, body composition and center of mass as a result of bariatric may cause changes in postural control and balance. The purpose of this study to evaluate the effect of rapid weight loss on static balance and functional mobility among excessively obese patients undergoing Laparoscopic adjustable gastric banding (LAGB) surgery.

Material and Methods: Subjects included 8 female patients (28 to 53 years), diagnosed with obesity BMI >35, (obesity class 2 and class 3/morbid) who underwent LAGB surgery. The group was tested before LAGB surgery as a baseline measurement, then at follow-up appointments at 6 weeks, 12 weeks, and 24 weeks. Anthropometric measurements (body weight, height and hip/waist ratio), static balance test, 10 m walk test, and timed get-up-and-go test was also administered at each of the testing sessions. Physical activity situation was also determined using questinaire at presurgery and

24-week check-ups. The descriptive statistics were expressed as medians, first and third quartiles. Each measurement was recorded four times (pre-operation, 6-week, 12-week, and 24-week). Friedman test, with Dunn-Bonferroni post-hoc tests, was used to test differences between baseline, 6-week, 12-week, and 24-week assessments. A p value of <0.05 was considered as statistically significant.

Results: The change in weight, BMI, waist, hip and abdominal circumference, waist-hip ratio, static sway eyes open, timed up-and-go, 10 m walk, steps in 10 m walk test values ($p<0.001$) and comparision of these values to postoperative values in 6,12 and 24th weeks of follow-up using Bonferroni correction method were significant statistically ($p=0.011$, $p<0.001$, $p=0.021$ respectively). However static sway eyes closed values were not statistically significant ($p>0.005$).

Conclusion: In 24 months of follow-up after LAGB operation, the weightloss, reduction in abdominal circumfarence, increase in walking speed againts time and step count and recovery in functional movements were shown clearly in this study. Also reduction in static balance surface oscillation confirmed the improvement of balance control in time. However studies with larger sample size and different bariatric surgical techniques are necessary to support our findings in our prelimanry results with a single surgical method.

Key words: Static balance, functional mobility, LAGB, obesity, rapid body weight loss.

SS-22

Laparoscopic Sleeve Gastrectomy: Role of intraabdominal postoperative drainage

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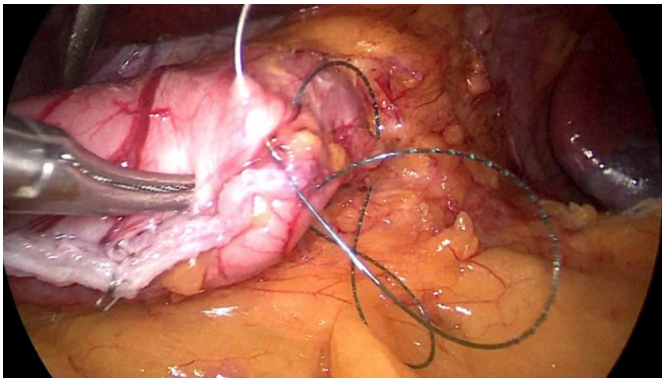
Introduction: Laparoscopic Sleeve Gastrectomy (LSG) has became populer in obesity surgery in last decade due to the well short-term results such as adequate weight loss. Bleeding and leakage are important postoperative complications and early recognation is mandatory. Our aim was to identify the effectiveness of routine drain replacement in LSG.

Material and Methods: All the patients were operated by the same surgical team. The entire staple line was invaginated with continuous seromuscular suturing using 3/0 V-Loc 180 suture (Covidien, USA) (Fig. 1). Patients were divided into two groups as: Drained group (DG) and Non-Drained group (NDG). Drain was replaced in patients with hypertension and BMI higher than 50 kg/m^2. Patients characteristics such as gender, BMI, ages, operative time, hospital stay, and complications were compared.

Results: A total of 127 patients who underwent LSG in last year were included. There were no differences between DG (n=86, 67.7%), and NDG (n=41, 32.2%) in terms of age, BMI and gender(Table 1), mean operative time (DG 68 min, NDG 62), and hospitalization time (DG 3 day, NDG 3). Also no difference was detected between two groups in terms of postoperative complications, however one intragastric bleeding was detected in DG (0.78%) who treated conservatively.

Conclusion: Data collected in current study suggested that no need to routine drain replacement in LSG if the staple line is sutured, however further studies with larger number is required for final conclusion.

Key words: Obesity surgery, staple line suturing, postoperative drainage, Sleeve Gastrectomy.



Staple line seromusculer suturing.

Patients' demographics

	Group 1(drain)	Group 2(no drain)	P
n	86 (67.8%)	41(32.2%)	NS
Age (mean;range)	35 (19-64)	30 (18-53)	NS
BMI (mean;range)	44 (32-63)	41 (32-57)	NS
Male/female (ratio)	23/63	5/36	NS
Hospital Stay	3	3	NS
Operation Time(mean;range)	68 (45-120)	62(42-84)	NS
Complications -Bleeding -Abscess -Fistula	1(%1.1) intragastrik bleeding	0	NS
Reoperation	0	0	NS
Mortality	0	0	NS

SS-23

Continuous full-thickness suturing of the staple-line by barbed suture during Sleeve Gastrectomy: The prospective assessment of a new reinforcement technique

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Introduction: Best method to reinforce the staple line dur-

ing sleeve gastrectomy (SG) is not known. In this study, the efficiency of a new reinforcement technique is evaluated.

Material and Methods: During all SGs, entire staple line was reinforced utilizing 6" barbed suture by meticulous, full-thickness, continuous stitching (V-Loc™ 180, Medtronic, MN, USA). Special care was needed to take each bite not more than 5-6 milimeters apart. All had a Jackson-Pratt drain which was removed at discharge on the 3rd postoperative day and the total drain output was recorded. All complications, transfusion status and outcome details were retrieved from the prospective data-base.

Results: Between January 2012 – August 2019, 868 patients had a primary SG without mortality. Single leak occurred in a super-super obese with severe functional stenosis who was treated by emergency Roux-en-Y gastric by-pass (RYGB). Leak rate was 0.11% (n=1/868). Bleeding requiring re-operation occurred in 4 patients, giving a rate of 0.46% (n=4/868). Three bleedings occurred at the staple line (two intrabdominal, one intra-gastric) and were managed by re-suturing laparoscopically. Operative gastroscopy was also used during the management of the intra-gastric bleeding. Fourth bleeding was from the splenic hilum and managed by emergency open surgery. Six patients required blood transfusions postoperatively, and the mean drain output was 103,6 ± 26,1 cc. Including the patient who underwent emergency RYGB, 9 patients developed severe functional stenosis (n=9/868, 1%) and 8 were treated by balloon dilatation, 3 requiring multiple dilatations. One year excess weight loss rate was 86%.

Conclusion: The technique presented seemed as an efficient way to reinforce the staple line as 0.1% leak and 0.4% bleeding rates were remarkable. It is cheap compare to any buttresses. It also decreases the probable associated risks of staple mis-firings as the entirety of the staple line is re-addressed with continuous, full thickness suturing.

Key words: Sleeve Gastrectomy, staple line reinforcement, barbed suture, V-loc, complications.

SS-24

Intraoperative challenges in laparososcopic Sleeve Gastrectomy

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Introduction: Laparoscopic Sleeve Gastrectomy (LSG) has known a magnificent increase worldwide during the last decade. Despite its simplicity and multiple advantages, it may result in serious complications. Intraoperative adverse events (AIE) and conversion to open surgery are the strongest risk factors for severe complications after LSG. Bariatric procedures may be technically challenging in some cases, and there is little information in the literature on complications that occur during surgery. The aim of this study is to describe in detail intraoperative adverse events, complications and challenges specific to LSG, their prevention and treatment.

Material and Methods: In total, 127 patients underwent LSG cases were evaluated retrospectively. Patients' sex, BMI, ages, operative time, hospital stay and complications were examined.

Results: One hundred and twenty seven patients that underwent LSG by a standard operative team in a 1 year period were enrolled in this study. Most of the patients were female (n=99), twenty eight were male. The mean age was 33.5 years (range, 18–64 years) and the mean preoperative BMI was 43 kg/m^2 (range, 32–63 kg/m^2). The mean operative time was 62 min (range, 42–120 min) and mean hospital stay 3 days (range, 2–4 days). All operations were performed by the same team of surgeons. There were no conversion to open surgery, organ injury and anesthesia events. Stapler fructure occured in two case (1.5%), stapler misfire occured in one case (0.78%). There was no correlation between intraoperative complications and length of stay or early complications.

Conclusion: Incidence of an AIE is not uncommon during LSG and is not associated with much higher risk of major complication. Additional study is needed to assess the association between AIEs and early postoperative complications.

Key words: Sleeve Gastrectomy, intraoperative complications, intraoperative adverse events.

Stapler fracture.

SS-25

Which one is better in laparoscopic sleeve gastrectomy to reduce the complications: Fibrin sealant, suturing, endoclips or surgicell?

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Introduction: Laparoscopic sleeve gastrectomy (LSG) is one of the most popular surgical treatment methods of obesity. The aim of this study was to review clinical evidence following the use of fibrin sealant, suturing, using endoclips or using surgicell in standard LSG.

Material and Methods: Data of morbid obese patients, who underwent LSG from May2015 to July2019 and were recorded prospectively and data analysed retrospectively. Totaly 945 patients were included to the study. Demographics variables, co-morbidities, re-admission rate and postoperative early and late complications were evaluated for the postoperative first month. The patients were divided in four groups acording to usage of fibrin sealant, suturing, endoclips, or surgicell. Group I patients with fibrin sealant, Group II patients with suturing, Group III patients with endoclips and Group IV with surgicell. Preoperative, postoperative 4th, 12th, 24th and 48th hour HG and Hct varies were collected. Complications were recorded.

Results: A total of 945 patients were included to the study. All patients were completed 1st month of the follow up. In groupI hemoglobin values were 12.8±3.7, 12.2±2.9, 12±4.8, 11.8±4.6 and 12.5±4.2 gr/dl at preoperative, postoperative 4th, 12th, 24th and 48th hours respectivly. In groupII hemoglobin values were 12.7±4.1, 12.5±3.9, 12.3±3.8, 12.1±4, 0 and 12.4±5.3 gr/dl at preoperative, postoperative, 4th, 12th, 24th and 48th hours respectivly. In groupIII hemoglobin values were 12.9±3.9, 12.2±2.9, 11.6±4.8, 11.2±4.9 and 11.0±4.9 gr/dl at preoperative, postoperative 4th, 12th, 24th and 48th hours respectively. In group IV hemoglobin values were 12.9±4.2, 12.1±3.1, 11.5±4.9, 11.1±5.1 and 10.8±5.3 gr/dl at preoperative, postoperative 4th, 12th, 24th and 48th hours respectively. In group I, III and IV hg decreases were significantly high to the group II. In group I there has been 2 bleeding (non were re-operated), no fistula or twist. In group II there has been no bleeding, no fistula or twist. In group III 10 bleeding (4 were re-operated), no fistula or no twist were seen. In groupIV 6 bleeding (2 were re-operated) no fistula or no twist were seen.

Conclusion: This study indicates that suturing is a reliable and usefool tool to reinforce the staple line and may prevent potential bleeding.

Key words: Obesity, metabolic disorders, surgical treatment of obesity.

SS-26

Laparoscopic sleeve gastrectomy experience in the last 12 years

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Introduction: Laparoscopic sleeve gastrectomy (LSG) is one of the options in obesity as a treatments. The aim of this study is to present the data of patients who underwent laparoscopic sleeve gastrectomy in the last 12 years.

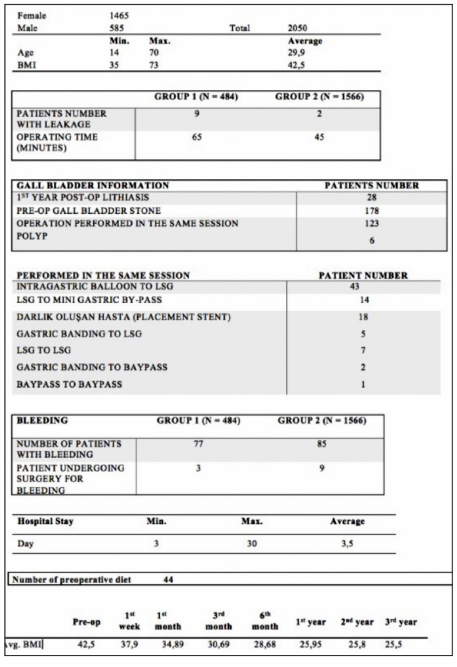
Material and Methods: The prospectively collected data of 2050 patients who underwent LSG between 2007–2019 were evaluated retrospectively. The patients were divided into two groups and the data were collected prospectively and evaluated retrospectively. The patients who underwent the first 5 years and the next 7 years were evaluated separately. Demographic data such as hospitalization and complication rates were compared between the groups.

Results: There were two groups which are group 1 (n=484) in the first 5 years and group 2 (n=1566) was evaluated in the last 7 years. There was no statistically significant difference in body mass index (BMI) and duration of hospital stay. There were 9 leakages (1.85%) in the group 1 and 2 leakages (0.12%) in group 2. No mortality was observed in the last 12 years.

Conclusion: When the surgical experience increases, the complication rate was observed less.

Key words: Sleeve gastrectomy, leakages, gall bladder, bleeding.

Results of 12 years experience



Female	1465			
Male	585		Total	2050
	Min.	Max.		Average
Age	14	70		29,9
BMI	35	73		42,5

	GROUP 1 (N = 484)	GROUP 2 (N = 1566)
PATIENTS NUMBER WITH LEAKAGE	9	2
OPERATING TIME (MINUTES)	65	45

GALL BLADDER INFORMATION	PATIENTS NUMBER
1ST YEAR POST-OP LITHIASIS	28
PRE-OP GALL BLADDER STONE	178
OPERATION PERFORMED IN THE SAME SESSION	123
POLYP	6

PERFORMED IN THE SAME SESSION	PATIENT NUMBER
INTRAGASTRIC BALLOON TO LSG	43
LSG TO MINI GASTRIC BY-PASS	14
DARLIK OLUŞAN HASTA (PLACEMENT STENT)	18
GASTRIC BANDING TO LSG	5
LSG TO LSG	7
GASTRIC BANDING TO BAYPASS	2
BAYPASS TO BAYPASS	1

BLEEDING	GROUP 1 (N = 484)	GROUP 2 (N = 1566)
NUMBER OF PATIENTS WITH BLEEDING	77	85
PATIENT UNDERGOING SURGERY FOR BLEEDING	3	9

Hospital Stay	Min.	Max.	Average
Day	3	30	3,5

Number of preoperative diet	44

	Pre-op	1st week	1st month	3rd month	6th month	1st year	2nd year	3rd year
Avg. BMI	42,5	37,9	34,89	30,69	28,68	25,95	25,8	25,5

SS-27

Efficacy of staple line reinforcement with omentoplasty during laparoscopic sleeve gastrectomy: Experience of a single center and the review of reinforcement techniques

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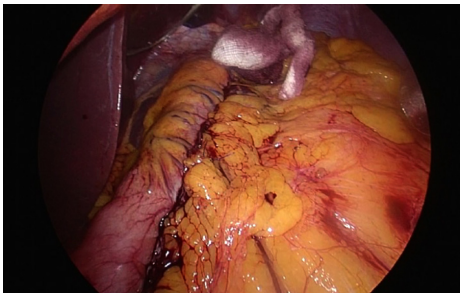
Introduction: The aim of this study was to evaluate the protective effects of Staple Line Reinforcement (SLR) techniques during Laparoscopic sleeve gastrectomy (LSG) on postoperative leakage and hemorrhage.

Material and Methods: A total of 3592 LSG cases were included in the study. All the patients were divided into three groups: No reinforcement (NoSLR) (control group), SLR with Fibrin Glue (SLR-FG) and SLR with Omentoplasty (SLR-O). The demographic data and the perioperative characteristics of the groups were recorded retrospectively. Among these, age, gender, preoperative comorbidities, ASA scores, body mass index (BMI), duration of operation, re-operation status, postoperative Esophagogastroduodenography (EGD), Ultrasonography (USG) and Computarized Tomography (CT) findings were recorded.

Results: The most common postoperative complication was bleeding (0.8%) and leakage (0.5%). Overall complication rate was 2.7%. Mortality rate was 0.1% (4 patients). There was a significant difference in BMI and gender distribution between the groups. However, there was no significant difference in age, comorbid diseases, ASA scores, operative times, bleeding and leakage rates. When SLR-FG was compared with NoSLR, the incidence of leakage and bleeding complications were similar. Although the effect of omentoplasty on the incidence of leakage was not significant, its protective feature was observed (OR: 0.260 CI: 95% p=0.099). Similarly, there was a protective feature in the development of hemorrhage, but it was not significant (OR: 0.557 CI: 95% p=0.319).

Conclusion: SLR-O technique, especially when applied by experienced surgeons, with promising results in the prevention of postoperative leakage and hemorrhage, should be preferable reinforcement method.

Key words: Fibrin glue, leakage, obesity surgery, omentoplasty, staple line reinforcement.



Staple line reinforcement with omentoplasty.

SS-28

Comparison of the effects of intragastric balloon and intragastric botulinum injection used in the treatment of obesity on weight loss and patient's satisfaction

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Introduction: There is great interest in new, safe, simple, nonsurgical procedures for weight loss. Recently, intragastric balloon and intragastric botulinum injection (botox) applications are gaining popularity in the treatment of obesity. The aim of our study was to evaluate the effect of these two methods on weight loss and patient satisfaction.

Material and Methods: Forty patients with intragastric balloon and 46 patients with intragastric botox were included in the study. The study was included the patients who intragastric balloons were removed or intragastric botox had elapsed at least 6 months after the procedure. The results of the treatment, a Likert-type survey belong to obesity treatment and Short Form-12 satisfaction questionnaire were performed in all patients.

Results: In this study, 72 (83.7%) of the patients were female and 14 (16.3%) were male. The mean BMI before procedure was 34.23±6.99 (25.70–58.80). None of the patients developed major complications after intragastric botox, whereas 7 (17.5%) patients applied intragastric balloon was lack of tolerable and vomiting. The excess weight loss after intragastric balloon was significantly higher than botox (20.95±8.49 (7–40) vs. 12.58±6.14 (0–25), p=0.001). BMI reduction after the procedure was significantly higher in gastric balloon patients than in gastric botox patients (mean 7.37 vs 5.03, respectively p=0.02). No statistical significance was found between the satisfaction rates and success scores of the patients (balloon vs. botox respectively 37.3% vs 30.6%, mean 46.9% vs 41.4%, p=0.296). There was no difference between SF-12 subcomponents in both physical and metal processes.

Conclusion: Endoscopic methods used in the treatment of obesity, intragastric balloon and botox trend is increasing recently. Although weight loss in intragastric balloon was more effective than botox, similar satisfaction levels were observed in patients compared to two procedure. Therefore, both treatment options can provide satisfactory results in selected patients appropriately.

Key words: Intragastic ballon, intragastric botulinum injection, obesity, patient satisfaction.

SS-29

Short- and mid-term effects of Sleeve Gastrectomy on left ventricular functions with two-dimensional speckle tracking echocardiography in obese patients

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Introduction: This study aimed to investigate left ventricular functions of obese patients with no known heart disease who underwent laparoscopic sleeve gastrectomy by speckle tracking echocardiography in their early and medium-term post-operative follow-up.

Material and Methods: 37 obese patients (10 M, 27 F) without coronary artery disease or heart failure who had undergone LSG were included in the study. Apical 4–3–2 chamber images were analyzed longitudinally by conventional methods and speckle tracking echocardiography (STE) for left ventricle functions pre-operatively, at the post-operative Month 1 and at the post-operative Month 6 (QLAB 6.0), using current software.

Results: No difference was found between standard echocardiography and Doppler parameters in terms of the 1-month vs. 6-month follow-up values compared to baseline. Left ventricular STE longitudinal measurements demonstrated significantly higher longitudinal strain and strain velocity parameters in the follow-up values at Month 6 compared to the values at Month 1 and at baseline. Global longitudinal strain (GLS) was -17.48±1.09% in 6-month follow-up, -16.16±1.26% in 1-month follow-up and -16.06±1.25% at baseline (p<0.001). A significant correlation was found between Delta GLS, which represents patients' GLS change in 6 months, and Delta Weight, which represents patients' body weight change in 6 months.

Conclusion: Obese patients who had undergone LSG were observed to have improved left ventricular function in the mid-term.

Key words: Sleeve gastrectomy, left ventricular functions, speckle tracking echocardiography.

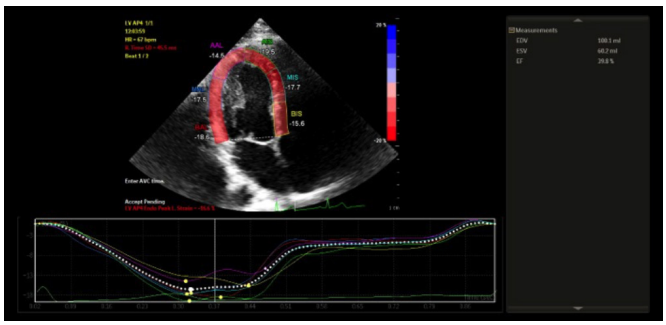

Figure 1.

Table 1.

	Baseline	1st month	6st month	P*	P1†	P2†	P3†
S-4C (%)	-15,91±1,55	-16,05±1,50	-17,37±1,31	<0,001	NA	<0,001	<0,001
S-3C (%)	-15,86±1,18	-16,05±1,15	-17,45±1,40	<0,001	NA	<0,001	<0,001
S-2C (%)	-16,40±1,38	-16,64±1,37	-17,62±1,68	<0,001	NA	<0,001	<0,001
GLS (%)	-16,06±1,25	-16,16±1,26	-17,48±1,09	<0,001	NA	<0,001	<0,001
SRS-4C, 1/s	-1,18±0,03	-1,19±0,03	-1,20±0,03	<0,001	NA	0,015	<0,001
SRS-3C, 1/s	-1,19±0,02	-1,18±0,02	-1,20±0,02	<0,001	NA	0,002	<0,001
SRS-2C, 1/s	-1,19±0,02	-1,19±0,02	-1,21±0,02	<0,001	NA	<0,001	<0,001
GLSRS, 1/s	-1,19±0,02	-1,19±0,02	-1,20±0,02	<0,001	NA	<0,001	<0,001
SRE-4C, 1/s	1,72±0,07	1,72±0,09	1,76±0,07	<0,001	NA	<0,001	<0,001
SRE-3C, 1/s	1,72±0,08	1,72±0,09	1,74±0,08	<0,001	NA	0,018	<0,001
SRE-2C, 1/s	1,71±0,09	1,72±0,09	1,77±0,07	<0,001	NA	<0,001	<0,001
GLSRE, 1/s	1,72±0,07	1,72±0,08	1,76±0,07	<0,001	NA	<0,001	<0,001
SRA-4C, 1/s	0,70±0,07	0,69±0,08	0,71±0,07	<0,001	NA	<0,001	<0,001
SRA-3C, 1/s	0,70±0,07	0,69±0,08	0,71±0,08	<0,001	NA	0,004	0,008

*Results are shown as mean±SD. P1 = Baseline vs. 1st month; P2: 1st month vs. 6st month; P3: Baseline vs. 6st month; LS: Longitudinal strain; 4C-3C-2C: Apical four-, three-, and two-chamber views; GLS: Global longitudinal strain; SrS: Systolic longitudinal strain rate; SrE: Early diastolic strain rate; SrA: Late diastolic strain rate; GLSr: Global longitudinal strain rate *Friedman's test; †Wilcoxon test.*

SS-30

The impact of the diameter of boogie and distance from pylorus to outcomes of sleeve gastrectomy: a randomized controlled study

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Introduction: There are no standards for the diameter of boogie and distance between the point of resection and pylorus in laparoscopic sleeve gastrectomy (LSG) and discussions on this topic continue. The aim of this randomized study was to investigate the impact of reducing both the diameter of boogie and distance from pylorus to results of LSG.

Material and Methods: 145 patients with body mass index 30.5–64 kg/m² were included into the study. Age of patients varied from 18 to 65 and 115 of them were females. According to the technique of laparoscopic surgery the patients were randomized to 2 groups: 1–71 patients,diameter of boogie 36Fr and over,distance between the point of resection and pylorus 4–6 cm; 2–74 patients, diameter of boogie 32Fr, distance between the point of resection and pylorus 2–3 cm. The main criterion of comparison was the rate (%) of excessive weight loss on 6th and 12th month after surgery. The additional criteria of comparison were the changes in progression of concomitant diseases and complications after surgery. All patients were followed-up for 1 year.

Results: Patients of 1stgroup have lost 61±3% of excessive weight 6 months after surgery, and 73±4% of excessive weight 12 months after surgery. According results in patients of 2nd

group were 77±3% and 89±3%. The difference between the groups was statistically significant both 6 and 12 month post-operatively ($p<0.05$). Hypertension, diabetes, dyslipidemia, sleep apnea syndrome, arthralgia and depression regressed or reduced in 70–80% cases after 6 months, and in 85–96% cases after 12 months in patients of 1st group. The same outcome was documented in 84–94% cases both after 6 and 12 months in patients of 2nd group. There was no difference in complications between the groups, and there was no mortality.

Conclusion: This randomized study has shown that 32Fr boogie and 2–3 cm for point of resection in LSG is more effective for rapid weight loss than 36Fr and over boogie and4-6 cm for point of resection. It also helps to get a remission of concomitant pathologies earlier (after 6 month) and does not increase the complication rate.

Key words: Sleeve gastrectomy, diameter of boogie, distance from pylorus, 32 Fr.

SS-31

Presurgical predictive factors of excess weight loss after laparoscopic Sleeve Gastrectomy

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Introduction: After laparoscopic sleeve gastrectomy (LSG), lifestyle modifications, such as eating a protein-rich diet and exercise are the main factors that boost Excess Weight Loss (EWL) rate. In some patients, desired EWL rates may not be achieved despite proper diet and exercise. In this study, we aimed to determine presurgical predictors of EWL, and to examine the impact of age, gender, pre-operative BMI and the amount of excess weight on EWL rate.

Material and Methods: A prospective cohort study was planned with patients who underwent LSG. All patients' demographic data (age, gender), preoperative BMIs and weights were recorded, and they were called for follow-up visits at the 1st, 3rd, 6th, 9th, 12th and 18th postoperative months. Patients were stratified into 3 groups according to their age (AGE1: <30, AGE2: 30–50, AGE3: ≥50); 2 groups according to BMI values at the time of surgery (BMI1: ≤50 kg/m², BMI2: >50 kg/m²); and 2 groups according to their excess-weight at the time of surgery (EW1: ≤60 kg, EW2: >60 kg), and were compared with respect to which EWL values measured during the postoperative follow-up visits. Variables were expressed as mean ± standard deviation. Univariate statistics (Chi-square, t-test, ANOVA) were used for comparison.

Results: A total of 456 patients (371 (81.4%) females and 85 (18.6%) males) were operated. Mean age was 39.04±10.86 years. The preoperative median weight and BMI were 124 kg (113–137) and 45.95 (42.8–50.6) kg/m², respectively. %EWL values didn't differ with gender ($p>0.05$), but were significantly lower in AGE3-group. At all follow-up visits, AGE1-group had the highest %EWL while BMI2 and EW2 groups had lower %EWL ($p<0.001$) (Table 1, Figure 1).

Conclusion: Patients with excess weight over 60 kg, and BMI over 50 kg/m² should be forced to target weight loss specified by the bariatric team with diet-exercise-medical treatment programs prior to surgery.

Key words: Sleeve Gastrectomy, follow-up, excess weight loss, predictive factors.

Table 1. Follow-ups data according to groups

	N	Mean	Std. Deviation	Minimum	Maximum	P value	Significant groups with Bonferroni
EWL1							
Male	83	26,854	8,1370	11,1	49,4	0,246	
Female	304	25,717	7,8451	6,4	56,8		
EWL2							
Male	39	47,462	12,1166	26,7	71,2	0,472	
Female	240	45,969	11,9919	22,5	97,0		
EWL3							
Male	42	67,679	13,8587	38,5	93,7	0,087	
Female	214	63,145	15,9274	23,8	106,0		
EWL4							
Male	19	76,742	16,6441	48,6	105,7	0,509	
Female	153	73,652	19,4701	33,9	139,0		
EWL5							
Male	16	88,013	13,8410	48,6	121,2	0,162	
Female	111	81,017	19,1535	33,9	121,3		
EWL6							
Male	18	77,267	25,4035	48,6	110,1	0,591	
Female	121	80,047	19,5998	33,9	127,1		
EWL1							
Age group 1	81	27,135	7,4667	13,9	49,4	<0,001	1 vs 3
Age group 2	230	26,514	8,0197	6,4	56,8		2 vs 3
Age group 3	76	23,037	7,4313	7,3	38,8		
EWL2							
Age group 1	65	50,109	9,7293	30,2	74,6	<0,001	1 vs 3
Age group 2	147	46,971	12,4283	23,6	97,0		2 vs 3
Age group 3	67	40,622	11,1791	22,5	76,3		
EWL3							
Age group 1	57	70,525	13,6433	42,5	98,7	<0,001	1 vs 2
Age group 2	150	64,257	14,9454	23,8	106,0		1 vs 3
Age group 3	49	55,043	16,1766	28,7	88,3		2 vs 3
EWL4							
Age group 1	29	89,855	16,2640	58,1	130,8	<0,001	1 vs 2
Age group 2	106	73,934	17,0736	33,9	139,0		1 vs 3
Age group 3	37	61,730	18,1755	35,3	109,8		2 vs 3
EWL5							
Age group 1	21	98,129	14,4017	73,8	121,3	<0,001	1 vs 2
Age group 2	80	81,773	16,1529	30,9	121,2		1 vs 3
Age group 3	26	69,177	19,4021	27,8	114,1		2 vs 3
EWL6							
Age group 1	27	93,019	17,9857	65,5	121,3	<0,001	1 vs 2
Age group 2	92	78,965	20,3289	25,0	127,1		1 vs 3
Age group 3	20	65,010	10,3052	44,9	85,5		2 vs 3
EWL1							
BMI group 1	281	27,917	7,6778	8,6	56,8	<0,001	
BMI group 2	106	20,776	5,9620	6,4	38,5		
EWL2							
BMI group 1	203	49,935	11,1871	26,3	97,0	<0,001	
BMI group 2	76	36,142	7,5033	22,5	50,4		
EWL3							
BMI group 1	189	69,072	13,1815	29,8	106,0	<0,001	
BMI group 2	67	49,269	12,6527	23,8	97,5		
EWL4							
BMI group 1	118	79,981	17,9456	36,1	139,0	<0,001	
BMI group 2	54	60,907	14,8016	33,9	111,7		
EWL5							
BMI group 1	91	87,092	17,1248	41,6	121,3	<0,001	
BMI group 2	36	68,769	15,9096	27,8	111,7		
EWL6							
BMI group 1	85	87,362	19,3915	44,9	127,1	<0,001	
BMI group 2	54	67,606	15,4885	25,0	102,7		
EWL1							
Excess weight group 1	238	28,074	7,6865	8,6	56,8	<0,001	
Excess weight group 2	149	22,585	7,0704	6,4	47,1		
EWL2							
Excess weight group 1	174	50,672	11,2150	26,4	97,0	<0,001	
Excess weight group 2	105	38,730	9,2642	22,5	68,8		
EWL3							
Excess weight group 1	166	69,908	13,2093	29,8	106,0	<0,001	
Excess weight group 2	90	52,788	13,7127	23,8	97,5		
EWL4							
Excess weight group 1	98	81,305	17,9242	49,3	139,0	<0,001	
	74	64,309	16,3130	33,9	111,7		
Excess weight group 2							
EWL5							
Excess weight group 1	78	88,108	17,6425	41,6	121,3	<0,001	
Excess weight group 2	49	72,014	15,9107	27,8	111,7		
EWL6							
Excess weight group 1	72	87,683	19,8821	44,9	127,1	<0,001	
Excess weight group 2	67	71,094	17,2210	25,0	110,1		

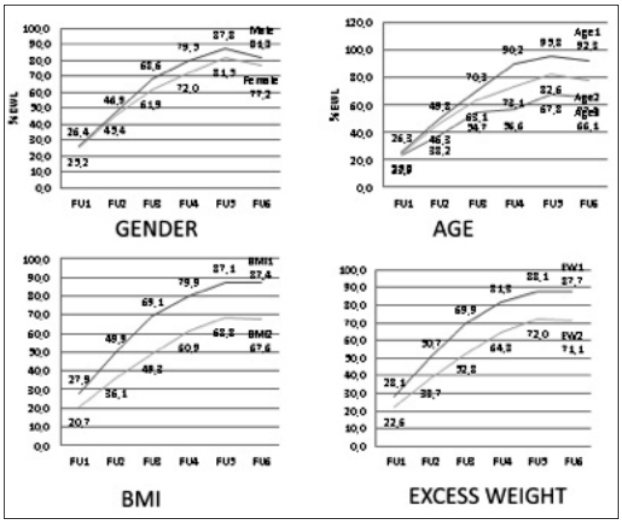

Figure 1. Graphics of follow-ups accoring to groups.

SS-32

The effect of laparoscopic sleeve gastrectomy on super obese patients (BMI ≥50) for the treatment of morbid obesity

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Introduction: The treatment of patients with a BMI ≥50 kg/m^2 is still controversial. We aimed to evaluate the effectiveness of Laparoscopic sleeve gastrectomy (LSG) in super obese patient in this study.

Material and Methods: Patients who underwent sleeve gastrectomy with BMI ≥50 between March 2016 and August 2019 were included in the study. The patients were evaluated in terms of demographic data, weight loss of 6th month, 12th month and 24th month, and their excess weight loss percentages and complications.

Results: A total of 101 patients were operated. 74 patients were female and 27 patients were male. While 66 patients underwent LSG alone, 20 patients underwent LSG with posterior hiatal hernia repair and 21 patients underwent cholecystectomy as concomittan. The median age of the patients was 35 (17–73), the median weight was 146 (117–220) kg. The median height was 162 (149–187) cm. The median BMI was found to be 54 (50–92). The median weight loss of the patients was 43 (22–67) kg at 6th month. The median %Excess weight loss at 6, 12, 24 months postoperatively was 52 (25–83) (n=82), 71 (32–97) (n=60), 62 (37–100) (n=20) respectively. Bleeding developed in one patient and no surgery was required.

Conclusion: Sleeve gastrectomy can be effective and safe treatment modality as the first choice in super obese patients.

Key words: Super obese, sleeve gastrectomy, weight loss.

SS-33

Effect of resection distance from pylorus on weight loss outcomes in laparoscopic sleeve gastrectomy (3 year followup)

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Introduction: Despite the established efficacy and safety of laparoscopic sleeve gastrectomy (LSG), controversy still exists on optimal operative technique; the resection distance from pylorus (DP) being among the most controversial issues. This study aimed to examine the effect of resection distance from pylorus on % Excess Weight Loss (EWL) during postoperative period, in patients who underwent LSG for morbid obesity.

Material and Methods: A total of 390 patients underwent laparoscopic sleeve gastrectomy for morbid obesity were included in this retrospective study. Patients were allocated into one of the two groups based on the distance between antrum resection margin and pylorus: Group A, ≤3 cm; Group B, >3 cm. Follow-up data for %EWS and nausea/vomiting as well as demographical and perioperative data were retrospectively reviewed and logistic regression analysis were done.

Results: Follow-up data up to 12 months were available for all patients, whereas 199 patients had follow-up data at 24 months. Shorter distance from pylorus was associated with higher %EWL throughout the treatment period ($p<0.001$), evident from the first postoperative month ($p=0.013$ for the first month, $p<0.001$ for all other time points). The benefit extended up to 24 months in ≤3 cm group. However, nausea/vomiting was more frequent in ≤3cm group only at 1-month visit (15% vs. 4%, $p<0.001$). In multivariate evaluations, while %EWL variable was taken as dependent variable, time variable with DP x time interaction was statistically significant in the model.

Conclusion: Our findings indicate that a short distance between resection margin and pylorus is associated with better and sustained %EWL in LSG. However, these patients seem to be more prone to nausea and vomiting in the early postoperative period. Further prospective large studies would help to define an optimal resection distance

Key words: Sleeve gastrectomy, %Excess Weight Loss (%EWS), resection margin, residual antrum size, nausea.

SS-34

The effect of posterior fixation on weight loss in patients with sleeve gastrectomy: short-term results

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Introduction: Posterior fixation is our method that we perform to fix the remnant tube along the edge of the stapler line to the posterior by using fibrin tissue glue, and to eliminate the effects of sharp angulation and twist which may cause subsequent dysphagia and vomiting. In this study we aimed to investigate the efficacy of posterior fixation on weight loss after sleeve gastrectomy.

Material and Methods: The study was designed as prospective randomized controlled trial. We randomized the patients in two groups. Each group has 40 patients. in group 1 patients we did not perform posterior fixation. In group 2 we performed posterior fixation to all patients. All patients have come to their controls. And their results recorded. We have the six months followed up of the patients.

Results: 80 patients, 40 patients in each group, were included in the study. 70 patients were female and 10 were male. The mean age of the patients was 36.76 (21–57). The median BMI of the patients was 45.7 (57.4–38.4). Group 2 patients did not develop any complications during postoperative follow-up. Dysphagia was seen as postoperative complication in 4 patients in group 1. The decrease of BMI compared between two groups. There was a statistically significant decrease in group 2 patients compared to group 1.

Conclusion: LSG is a surgical procedure with restrictive efficacy. Although it has complications such as leakage, bleeding, stenosis, splenic trauma and gastro-esophageal reflux (GERD), it has a lower risk in morbidly obese patients compared to other surgical procedures. In our study, we found that adding the standardized posterior fixation method to the standardized surgical procedure reduces the surgical complication rates to nearly zero after laparoscopic sleeve gastrectomy. In addition, it is effective on reducing BMI more than standart method.

Key words: Posterior fixation, sleeve gastrectomy, BMI.

SS-35

Revisional robotic roux-en-Y gastric bypass after sleeve gastrectomy: Analysis of 47 patients

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Introduction: Sleeve gastrectomy is an increasingly used surgical procedure and is applied worldwide for the treatment of morbid obesity. However, the long-term results of sleeve gastrectomy are not clear when compared to standard RYGB. In patients undergoing sleeve gastrectomy, revisionional surgery may be required due to inadequate weight loss, severe GERD, Barrett's esophagus, stapler line stenosis. The aim of this study is to report the results of patients who have undergone revision robotic RYGB after sleeve gastrectomy.

Material and Methods: The records of patients who underwent revision surgery after sleeve gastrectomy between January 2016 and July 2019 were reviewed. Patients who underwent resonant RYGB due to weight gain, GERD, stenosis, and other reasons were evaluated. Demographic characteristics, initial operation findings, and the results of revision surgeries were recorded.

Results: Of the 56 patients who underwent revision RYGB, 37 were female and 19 were male. The mean age of the patients was 33 years. The periods between the first operation and revision surgery were between 36 to 64 months, with an average of 45 months. The most common reason for revision was inadequate weight loss (57%) while the second most common cause was severe gastroesophageal reflux (23%). While the mean body mass index (BMI) of the patients who underwent revision due to insufficient weight loss was 47 before primary surgery, this value was 38 before the revision. The revision robotic RYGB surgeries of the patients lasted an average of 175 minutes. No major leak or bleeding-like complication was observed in any patient. The mean length of hospital stay was 2.4 days.

Conclusion: RYGB is the preferred procedure in patients requiring revision after sleeve gastrectomy. Revisionary bariatric surgery is more complicated than primary bariatric surgery. For revision after sleeve gastrectomy, the robotic method can be applied effectively and safely in the choice of RYGB.

Key words: Bariatric surgery, revision surgery, robotic RYGB.

SS-36

Importance of measuring total bowel length in mini-gastric by pass

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Introduction: Mini Gastric Bypass (MGB) is widely used all over the world. Postoperative intractable weight loss, malnutrition, chronic diarrhea and related revision surgery are considered as complications of MGB surgery. The aim of the study is to investigate whether a bilio-pancreatic limb length (BPL) adapted for small bowel length (SBL) was superior to a fixed 200 cm BPL in obese patients in terms of weight loss outcomes, nutritional deficiency, metabolic effects, and the need for revision surgery. A total of 302 patients undergoing MGB were divided into two groups according to the BPL length used as follows: BPL group (189 patients) with fixed 200 cm BPL (n=113) and BPL group constructed by bypassing 1/3 of SBL (n=189). These two groups were compared as for anthropometric measurements, BMI, nutritional parameters (vitamin B12, serum albumin, Vit D, ferritin level), chronic diarrhea and need for revision surgery.

Material and Methods: A total of 302 patients in Groups 1, and 2 who underwent MGB between January 2017 and April 2019 were included in the study. In Groups 1, and 2, preoperative BMIs were 48.6 kg/m², and 42.3 kg/m² mean operative times, 65 and 76 min,; mean follow-up periods, 22–32, and, 4–21 months: mean length of hospital stays, 2.9, and 2.8 days, respectively. No postoperative mortality was observed in both groups. Four patients (n=4/113) did not lose enough weight in Group 1 In Group 2, the average bowel length was 575 cm (min. 275 and max. 1080 cm) and the average BPL length was 220 cm.In Group 1, 65, and in Group 2, 103 patients had DM, while postoperative remission of diabetes was achieved in all patients.

Results: Average postoperative albumin values were similar in both groups (4.12 g/dL and 4.19 g/dL in Groups 1, and 2, respectively). In Group 1, 2 patients developed hypoalbuminemia that could not be corrected despite all medical treatments and they underwent revision surgery. Severe attacks of diarrhea were observed in 8 patients in Group 1 and none of the patients in Group 2. The mean postoperative iron, vitamin d, vitamin B12 values and their replacement rates were similar.

Conclusion: Our study shows that the length of the feeding limb remaining after the loop gastro-jejenostomy anastomosis constructed in MGB is extremely important. Small bowel length can be adjusted by BPL to prevent inadequate or excessive weight loss, irreversible hypoalbuminemia and severe diarrhea.

Key words: Mini gastric bypass, biliopancreatic limb (BPL), total small bowel length, revision surgery, albumin, chronic diarrhea.

SS-37

Bariatric and metabolic surgery in correction of dislipidemia in patients with obesity

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Introduction: The Republic of Uzbekistan is the leader among the countries of Central Asia in the number of overweight people (44.5% of the country's citizens, of whom more than 20% are obese). Also, the number of patients with type 2 diabetes is growing. In 2018, 2186924 patients with type 2 diabetes were registered in the Republic.

Material and Methods: From January 2017 to July 2019, we operated on 68 patients with obesity, 63 of them had dislipidemia. The results of 63 patients with dislipidemia were analyzed. All patients were with obesity 2–3 degrees. The BMI is average and 33.4. All the analyzed patients underwent a mini gastric bypass, sleeve and RenY gastric bypass surgery. In 8 cases, mini-gastric bypass surgery was performed by laparotomy and in 41 cases by laparoscopic method, 9 cases sleeve and 10 cases RenY gastric bypass surgery.

Results: Observation periods averaged 1–1.5 years after mini-gastric bypass surgery. On admission, before surgery, patients have an average cholesterol (HDL) of 1.7, cholesterol (LDL) of 4.6, an atherogenic index of 4.2, total cholesterol of 5.7, triglycerides of 2.9. After performing a mini-gastric bypass in the observation period blood surgery, patients have an average cholesterol (HDL) of 1.3, cholesterol (LDL) of 3.8, an atherogenic index of 3.3, total cholesterol of 4.3, triglycerides of 1.6. Complications in the postoperative period were observed in 3 patients. In one case, suppuration of the postoperative wound, 1 - a case of hernia of the anterior abdominal wall and one patient with an abscess of the subdiaphragmatic space. All complications were noted in patients with laparotomy.

Conclusion: 1. Mini-gastric-bypass is a highly effective method for the correction of dislipidemia in patients with obesity; 2. Laparoscopic mini-gastric bypass surgery contributes to a drastic reduction of postoperative complications and fast rehabilitation of patients.

Key words: Dislipidemia, mini gastric bypass, bariatric and metabolic surgery.

SS-38

First 100 cases of a new bariatric surgeon: What did i learn?

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Introduction: Evaluating the short and midterm results of the same surgeon's first 100 cases.

Material and Methods: First 100 case of the same surgeon who were operated for morbid obesity between January 2016 and January 2017 evaluated retrospectively. Patient's data were collected from hospital records and follow up results from social media (WhatsApp, Facebook, Messenger). Demographic values (age, sex), preoperative comorbid diseases,-surgical procedures, early and late complications, body mass indexes (BMI), HLO positivity and laboratory results were evaluated. The differences between preoperative period and postoperative first year were evaluated.Results were given mean±standart deviation (minimum–maximum)and percentage (%). P<0.05 values were statistically significant.

Results: Male/Female rate was 17/83. Preoperative mean age was 36.05±9.81 (18–58) year, BMI was 44.97±4.73 (37–67) kg/m^2. HLO positivity rate was 24/76. There is no statistically difference for complication rate between HLO(+) and HLO(-) patients (p>0.05). Early complicatons were seen in 10 patients (haemorrhage, pulmoner thromboembolism, upper respiratory tract infection, surgical side infection) and late complications were seen in 17 patients (fistula, stenosis, cholesistholithiazis). Cholesistholithiazis rate after the first year was %16.3. Tissel was used in 4 of 5 haemorrhagic patients (p>0.386). There were statistically significant difference seen in BMI values between preopative time and posopterative 1, 3, 6, 9, 12 months (p<0.05). There were statistically significant difference seen in glucose levels between preopative time and postoperative 1, 3, 6 months (p<0.05). There were statistically significant difference seen in HbA1C percentages between preopative time and posopterative 1, 3, 6, 12 months (p<0.05). There were statistically significant difference seen in insulin levels between preopative time and postoperative 1, 3, 6, 12 months (p<0.05). There were statistically significant difference seen in AST and ALT levels between preopative time and postoperative 6 and 12 months (p<0.05).

Conclusion: Morbid obesity is an increasing health problem in the World. Surgery is the one of the important treament therapy. After surgery, not only the weight loss of the patients but also complicaiton due to comorbidities decreases. Diminishing the short and midterm problems due to morbid obesity, surgery has important role.

Key words: Morbid obesity, laparascopic sleeve gastrectomy, laparaskopic one anastomosis mini gastrik bypass, postoperative complication, diabetes mellitus.

SS-39

Bariatric and metabolic surgery in correction of diabetes mellitus in patients with obesity

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Material and Methods: From January 2017 to July 2019, we operated on 68 patients with obesity, 63 of them had type 2 diabetes. The results of 63 patients with diabetes mellitus were analyzed. All patients were with obesity 2–3 degrees. The BMI is average and 33.4. All the analyzed patients underwent a mini – gastric bypass, sleeve and RenY gastric bypass surgery. In 8 cases, mini-gastric bypass surgery was performed by laparotomy and in 41 cases by laparoscopic method.

Results: Observation periods averaged 1–1.5 years. On admission, blood sugar on an empty stomach averaged - 12.2 mmol/l, after a meal - 17.0 mmol/l, the level of c-peptide is 6.1, and the glycated hemoglobin is 9.8. The duration of diabetes mellitus averaged 10.5 years. Of the 22 patients, 6 before admission to the hospital received insulin in combination with hypoglycemic drugs, the rest are only pills. After performing a mini-gastric bypass in the observation period blood sugar decreased to 5.9 on an empty stomach, after a meal – 7.3 mmol\L. the Level of C-peptide decreased to 4.1, glycated hemoglobin average was 6.0. Of the 11 patients who on insulin therapy, after surgery, only one patient continues to take minimal doses of insulin, the rest of the patients achieved complete remission of diabetes. Complications in the postoperative period were observed in 3 patients. In one case, suppuration of the postoperative wound, 1 - a case of hernia of the anterior abdominal wall and one patient with an abscess of the subdiaphragmatic space. All complications were noted in patients with laparotomy.

Conclusion: 1. Mini-gastric-bypass is a highly effective method for the correction of diabetes mellitus of the 2nd type; 2. Laparoscopic mini-gastric bypass surgery contributes to a drastic reduction of postoperative complications and fast rehabilitation of patients.

Key words: Diabetes mellitus, bariatric surgery, metabolic surgery, minigastric bypass.

SS-40

Surgical management of gastric GİST tumour in a morbid patient

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42 year old male patient diagnosed with GIST in the large curvature of gastric corpus after endoscopy and CT-scan. Wedge resection was planned. A written consent was obtained from the patient whose body mass index was 41 before the surgery for sleeve gastrectomy incase sleeve gastrectomy was apropriate. Pathology result was GIST and surgical margins were negative. No postoperative complication was seen and the patiet was sent to medical oncology after discharge.

Key words: GIST, sleeve gastrectomy, morbid.

SS-41

A new "no-touch to posterior-wrap" technique to do sleeve gastrectomy in patients with previous anti-reflux surgery: A technical video-report

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Data is scarce on the feasibility of SG in patients who had a prior anti-reflux surgery. A new SG technique in patients having an intact fundoplication is presented. Using an optical trocar for initial access and with 5 trocars, adhesions between the liver and the previous fundoplication were mobilized to retract the left lateral segment. No dissection was done to see the right crus. Bursa omentalis was entered and the greater curvature of the stomach was freed from adhesions/short gastrics towards cephalad until the fundic portion was mobilized. The posterior wrap going behind the esophagus and the graft, if present, comes into vision where the dissection stopped. The posterior wrap was intentionally untouched and dissection between the graft and any organ was avoided. Dissection around the proximal lesser curve was also avoided as no dissection to free the right portion of a posterior wrap was required. Any anterior fundoplication was unfolded towards left. Anterior unfolding does not interfere with the presence of a graft and can be accomplished easily in a similar manner when doing a Nissen to Toupet conversion. During the unfolding of a Nissen fundoplication, special care was taken to avoid gastric injury to the side which will be left with the patient. Starting 3–4 centimeters from the pylorus, a SG over a 42 F bougie was done. During last 2 staples, the continuity of gastric wall going backwards to serve as the posterior fundoplication could be easily secured. No gastroscopy was required. Entirety of the staple line was reinforced utilizing 6" barbed suture by through and through, full-thickness, continuous suturing (V-Loc™ 180, Medtronic, Minneapolis, MN, USA). The technique described herein is used consecutively in 14 patients without any conversion or major complication and the results are in press at SOARD journal.

Key words: Sleeve gastrectomy, antireflux surgery, Nissen fundoplication, Toupet fundoplication.

SS-42

Laparoscopic Sleeve Gastrectomy after unsufficient endoscopic Sleeve Gastroplasty: How we do it?

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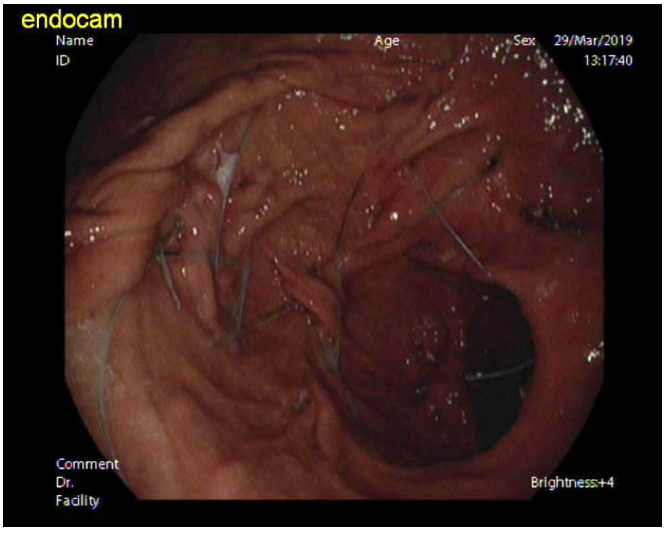
Endoscopic Sleeve Gastroplasty is a new endoscopic procedure whithout resection the stomach via endoscopy in obesity treatment. The goal of this procedure is to reduce the gastric lumen into a tubular configuration, with the greater curvature modified by a line of sutured plications. Our case is 42 years old female patient had a endoscopic sleeve gastroplasty before one year ago but she gaining weight in last 6 mounth. İn Endoscopic examination, the intragastric sutures seen loose and insufficient. and the sutures materials were free İn the gastric lumen and prevent the laparoscopic resection. İn this video,who we find a way out and who we do sleeve gastrectomy in the present case.

Key words: Sleeve, gastroplasty, gastrectomy.



Endoskopic imagine.

SS-43

Gastric leakage, 7 years after laparoscopic sleeve gastrectomy: Case report

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Introduction: The most feared complication after laparoscopic sleeve gastrectomy is leakage and reported to be 1-7% in the literature. We wanted to share a case of leakage that occurred 7 years after sleeve gastrectomy.

Case Report: A 30-year-old female patient underwent sleeve gastrectomy on 08.01.2012. At that time, the patient was 158 cm tall, 140 kg in weight, and 56 kg/m^2 in BMI. After 2 years of follow-up, the patient decreased to 95 kg. The patient was admitted with abdominal pain and high fever on 15.05.2019. The patient's fever was 38.5 C, wbc was 14.1 thousand/mm^3 (n=4-11), Hgb was 9.9 g/L, Crp was 430.9 mg / L (n=0-5) and ınr was 1.35. Abdominal tomography was reported as loculated collection (abscess) from the perigastric level to the perisplenic level, with millimeter diameter aerial views, and the axial plane was measured as 14.5x3 cm in the widest. (Fig. 1) The patient was decided to undergo diagnostic laparoscopy. During the operation, approximately 15 cm diameter abscess cavity extending from inferior to right and left lobe of the liver to the perissplenic area was detected and the abscess focus was aspirated and drain was placed (Fig. 2). Endoscopy was performed on the peroperative and a perforation with a diameter of 2-3 mm was detected approximately 2 cm below the gastroesophageal junction (Fig. 3). A nasojejunal catheter and drain was placed. The patient was given broad-spectrum antibiotics and IV-oral nutrition therapy. After 5 days, the Crp value was 6.2 mg/L. Endoscopic prolene-mesh plaque was inserted by the gastroenterology department (Fig. 4, 5). The patient was discharged with drain and one month later the drain was withdrawn.

Conclusion: This case is characterized by the latest occurrence of leakage in the literature.

Key words: Gastrectomy, leakage, Sleeve.

SS-44

The incidence of cholelithiasis after sleeve gastrectomy

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Introduction: Although the risk factors for gallstone formation in the normal population are well established, there are few studies evaluating the occurrence and incidence of gallstones after bariatric surgery. The aim of this study was to determine the incidence of symptomatic or asymptomatic gallstone formation after sleeve gastrectomy.

Material and Methods: 196 patients who underwent sleeve gastrectomy were evaluated retrospectively. Patients who underwent re-sleeve gastrectomy, who had gallstones before the operation, who had undergone cholecystectomy before and polyps in the gallbladder were excluded from the study. Ultrasonography is performed in all patients before bariatric surgery in our clinic.

Results: Of the 196 patients in the study; Since 14 patients had cholecystectomy, 3 had gallbladder polyps and 46 patients had gallstones on preoperative ultrasonography, 133 patients were included in the study. Thirty-one of the 133 patients included in the study were excluded from the study due to lack of regular postoperative follow-up. Patients were followed up for an average of 18±3 months. Gallbladder stones were detected in 43 patients out of 102 patients who were included in the study.55 patients had no gallbladder stones. Acute cholecystitis was detected in 6 patients and cholelithiasis and choledocholithiasis were detected in 2 of 43 patients.

Conclusion: Stone formation in the gallbladder is significantly increased in patients undergoing bariatric surgery compared to the normal population.

Key words: Sleeve gastrectomy, gallstone, ultrasonography.

SS-45

We can prevent biliary reflux symptoms in mini gastric bypass

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Introduction: Mini-gastric bypass (MGB) or one anastomosis gastric bypass (OAGB) is a bariatric procedure that is preferred frequently due to its easy application and success in postoperative metabolic problems. One of the most criticized aspects of this procedure is bile reflux which may occur into the stomach. The aim of our study is to show that it is possible to avoid bile reflux symptomatically with creation of a19-22 cm- long gastric pouch.

Material and Methods: A total of 312 patients undergoing MGB were divided into two groups according to the length of gastric pouch. In Group 1, 14-18 cm -long gastric pouches were formed in 127 patients and in Group 2, 19-22 cm -long gastric pouches were formed in 185 patients. Two groups were compared for postoperative biliary reflux symptoms. A

total of 312 patients who underwent MGB between January 2017 and May 2019 were included in the study. Backflow of brackish water into the mouth, epigastric pain not responding to anti-acid therapy, bloating, biliary vomiting were considered as complaints of biliary reflux.

Results: In Groups 1, and 2 preoperative BMIs were 48.9 kg/m² and 42.8 kg/m²; mean operative times, 64 and 74 mins; mean follow-up periods, 23–33, and 1, 3–22 months; mean duration of hospitalization, 2.9, and 2.8 days, respectively. In Group 1, 21 (16.5%) patients had significant biliary reflux complaints, whereas in the Group 2, no significant complaints were observed (0%). Sixty-five patients in Group 1 and 103 patients in Group 2 had DM, while postoperative remission was achieved in all patients. No significant difference was found as forweight loss in both groups. The mean values of iron, vitamin D, vitamin B12 and their replacement rates were similar in both groups.

Conclusion: In our study, it seems possible to avoid biliary reflux complaints by constructing a 19–22 cm-long gastric pouch in MGB.

Key words: Mini gastric bypass; gastric pouch, biliary reflux complaint.

SS-46

Evaluation of gastro-oesophageal reflux disease after Sleeve Gastrectomy and the results of laparoscopic double loop gastric bypass in revisional surgery

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Introduction: Gastroesophageal reflux (GERD) might be occurred after Sleeve Gastrectomy (SG). In this study, we aimed to show the results of preoperative diagnostic tests and laparoscopic double loop gastric bypass (LDLGB) surgery for de novo GERD after SG.

Material and Methods: From January 2018 to July 2019, 8 patients who underwent LDLGB for the conversion of SG because of GERD analyzed retrospectively. All patients who suffered from symptomatic and/or resistant reflux after SG underwent esophagogastroduodenoscopy (EGD), 24-hour esophageal pH meter and esophageal manometry. In the LDLGB procedure, sleeved stomach was transected above the incisura angularis via linear stapler to create the gastric pouch. The biliary limb was measured 100 cm distal to the Treitz ligament and gastrojejunostomy was performed using a linear stapler. Starting at this level, the alimentary limb was measured up to 100 cm and fixed by stitching it to the biliary limb. Side-to-side jejunojejunostomy was performed between alimentary and biliary limbs. Finally, the biliary loop and alimentary loop were separated using a linear stapler.

Results: The mean preoperative BMI was 32±3.9 kg/m². At EGD, class A esophagitis and alkaline reflux(bile) gastritis was found in 75% and 87.5% of cases, respectively. The mean DeMeester score and mean lower esophageal sphincter pressure was 66.3 and 16.4±5.2 mmHg, respectively. The mean operation time was 164±24 minute. There was no complication recorded. The mean BMI was 25.7±1.4 kg/m² in the follow-up period (mean 12.3±3.2 months). Reflux symptoms completely resolved in all patients.

Conclusion: The evaluation of de novo GERD after SG is important and it should be diagnosed by appropriate tests. Conversion of SG to LDLGB is a reliable and feasible technique in the treatment of de novo GERD.

Key words: Reflux, revisional surgery, Sleeve Gastrectomy.

SS-47

Revisional surgery for severe GERD after laparoscopic sleeve gastrectomy: Mini gastric bypass versus Roux-en-Y bypass: Single surgeon experience

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Introduction: Failure after Laparoscopic sleeve gastrectomy (LSG) due to weight regain or gastroesophageal reflux (GERD) is not uncommon and might indicate the need for revisional bariatric surgery. The preferred revisional procedure for these patients is still under debate. The objective of this study was to compare Mini Gastric Bypass (MGB) to Roux-En-Y Gastric Bypass (RYGB) as revisional surgery for patients who experienced failure after LSG.

Material and Methods: All consecutive patients who underwent revisional surgery due to failed LSG between January 2014 - January 2019 were identified. Patients were grouped to MGB versus RYGB accordingly. Data recorded included indication for surgery, patient demographics, resolution of GERD and weight loss.

Results: Sixty-four patients underwent revisional bariatric surgery after failed LSG by a single surgeon. Forty-eight of the patients (46/64) undergoing revision were referred to our tertiary clinic. 38 patients underwent RYGB, 24 of whom due to GERD and 14 due to weight regain. Sixteen patients underwent MGB due to weight regain, ten of whom had synchronous GERD. Patients who underwent MGB were significantly younger and with higher BMI. Resolution of

GERD was recorded in 87.5% (21/24) of RYGB patients and in 66% (6/10) of MGB patients (p=0.09). After a median follow up of 12 months, the median decrease in BMI was 7.7 kg/m^2 and 9.9 kg/m^2 in the RYGB and MGB patients, respectively (p=0.3). No major complication was noted in the entire cohort.

Conclusion: Both MGB and RYGB appear to be equally efficient in achieving weight loss after failed LSG. RYGB seems more efficient in achieving resolution of GERD, however a larger cohort is needed to validate this trend.

Key words: Revisional, surgery, LSG, LMGB, LRYGB.

SS-48

Nonoperative management of acute postoperative leakage after laparoscopic sleeve gastrectomy: Single surgeon experience

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Introduction: The staple line leak remains the most important complication of laparoscopic sleeve gastrectomy (LSG) causing significant morbidity and mortality. The aim of this study was to present the clinical outcomes of the patients with acute gastric leakage after LSG who underwent nonoperative management (NOM).

Material and Methods: We reported the prospectively collected data of 11 patients treated for acute leakage after LSG between 2015 January and 2019 February including follow-up data up to 2019 September. Of the study group, 6 patients referred to our department from other hospitals. The patients whom required surgical operations due to other complications such as leakage with stenosis, generalize peritonitis and hemodynamicaly unstable were excluded from the study cohort. In general NOM included CT-guided drainage of peri-gastric collections, endoscopic placement of bariatric stents across the leak site in addition to temporary nasojejunal feeding and/or parenteral nutrition and broad-spectrum antibiotics to control septic status.

Results: Demographics of the patients are given in Table 1. The site of leakage was gastroesophageal junction in all patients. Stent migration had occured in 4 patients whom required restenting. In all patients, inflammation parameters decreased within days after the NOM and negative radiographic findings were achieved regarding leakage at the time of stent removal. No mortality was occured during the study period.

Conclusion: We assume that nonoperative management is effective and safe treatment modality for acute gastric leakage occuring after LSG.

Key words: Sleeve Gastrectomy, acute, leak, nonoperative management, stent.

Table 1. Demographics of the patients treated for acute leakage after Laparoscopic Sleeve Gastrectomy

Case no	Age (years)	Gender	Preop BMI (kg/m2)	Comorbidities	Hospital stay (weeks)	Closure of leak time (weeks)
1	35	F	42,5	None	3	6
2	42	M	52,3	HT	4	5
3	46	F	45,6	HT+DM	6	8
4	24	F	41,4	None	5	6
5	55	M	48,7	DM	4	10
6	38	F	46,2	None	3	5
7	52	M	42,9	HT	4	6
8	48	F	49,1	HT	4	7
9	32	M	44,3	None	3	6
10	27	F	46,5	None	4	4
11	60	F	40	HT	5	8

SS-49

Gastric Roux-n-Y bypass with incidentally diagnosed intestinal malrotation

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Intestinal malrotation is a congenital midgut incomplete rotation anomaly which is very rare and usually asymptomatic until adulthood. Although in some patients, symptoms of bowel obstruction may occur at any time in their lives, it is usually detected incidentally in abdominal imaging methods or surgery performed for another reasons. We planned Roux-n-y gastric bypass in a 30-year-old female patient with obesity (BMI: 43.1) and reflux symptoms. Intraoperatively, we detected incidentally intestinal malrotation. Due to this congenital anomaly; transverse colon was not running across the abdomen, the duodenojejunal angle was absent and the caecum was located at the left upper quadrant of abdomen. It might be challenging for the surgeons because of these anatomical varieties. In the recent studies, it has been shown that patients with intestinal malrotation who considered for bariatric surgery, can be successfully operated. They found that the result in weight loss and the complication rates are similar compared with patients without anatomical abnormalities, just like the findings of our patient. In conclusion, patients with malrotation can successfully undergo laparoscopic Roux-n-y gastric bypass. Surgeons must check full abdominal anatomical condition prior to start the dissection of the stomach because it might be necessary for changing in the surgical procedure regarding the intestinal malrotation.

Key words: Bariatric surgery, congenital anomaly, intestinal malrotation, Roux-n-y Gastric bypass.

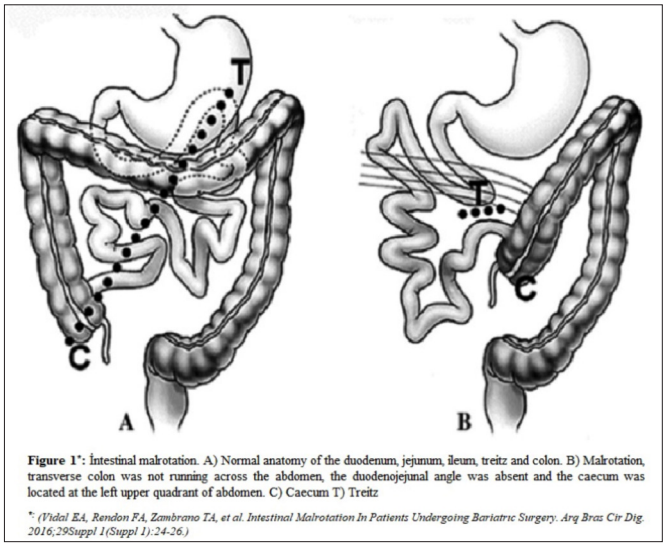

Figure 1*: İntestinal malrotation. A) Normal anatomy of the duodenum, jejunum, ileum, treitz and colon. B) Malrotation, transverse colon was not running across the abdomen, the duodenojejunal angle was absent and the caecum was located at the left upper quadrant of abdomen. C) Caecum T) Treitz

*: *(Vidal EA, Rendon FA, Zambrano TA, et al. Intestinal Malrotation In Patients Undergoing Bariatric Surgery. Arq Bras Cir Dig. 2016;29Suppl 1(Suppl 1):24-26.)*

Intestinal malrotation.

SS-50

Intragastric balloons in overweight patients: White hope or redundant?

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Introduction: Intagastric balloons has been used as a primary of staged procedure before surgical interventions for weight loss in obese and super obese patients for the last twenty years. The main principle of the procedure is to endoscopically introduced gastric balloon filled with 400-700cc of saline to reduce the volume of the stomach and to cause an early satiety for the patient. Although there are few complications reported in literature related to intragastric balloons, it is accepted as a safe procedure which showed successful results in terms of %TBW loss compared to conventional treatment modalities. Here in this presentation an overview of safety, efficacy and feasibility of intra-gastric baloons. Also comparison data versus major surgical interventions will be shared with the audience.

Material and Methods: There are currently 21 RCTS describing the efficacy of the IG baloon treatment. Safety profile and durability increased over the time.Complication rates decreased as the new products emerged. Also there are studies in the literature which showed favorable results for the use of IGB for super-obese patients. Patients with super obesity, in comparison with SMC, IGB as a bridge therapy before LGBP induced specific morbidities and increased the risk of early postoperative complications without modifying surgical time, hospitalization stay, or postoperative weight loss at 6 months. These results were the opposite to our working hypothesis. Also recent publications showed that sleeve gastrectomy compared to IGB showed better results in terms of decrease in BMI and %EWL in 6 months period and it was more tolerable. Patients can be followed longer after SG and weight loss is durable usually a second procedure as DS or conversion to RYGBP may not be necessary. Adverse events can also occur with BIB placement as gastric rupture, intolerance so sleeve has the potential risks of a surgical intervention.

Conclusion: IGB alone with life modification has a short and little affect on weight loss. IGB as a bridge therapy to surgery is effective reducing co-morbidities and easing the concomittant surgery. Sleeve gastrectomy has also been offered as a first line of treatment fro the super obese patients. Although sleeve gastrectomy is a major procedure with its low complications and favorable results can be used as a bridge therapy before procedures like DS or SADI. In conclusion we believe that IGB treatment is effective as a bridged therapy before surgical interventions with its safety profile and effective %TBW loss rates in large series with adequate follow-up.

Key words: Intragastric, balloons, endoscopy, morbid, obesity.

SS-51

Transit bipartition surgery for patient with morgagni hernia and diabetes

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Morgagni hernia is a rare type of congenital diaphragmatic hernia and can only be diagnosed at an advanced age, as it is usually characterized by minimal findings. Since many cases are asymptomatic, morgagni hernia may be more frequent than reported in the literature. A 65-year-old male patient that stain was determined at his lung at 7-years-old, diagnosed with tuberculosis and was treated for 1 year. However, the patient was diagnosed with morgagni hernia as a result of the absence of any change in this process. Surgery was not recommended to the patient who had been accustomed to living in this way for years. The patient was diagnosed with diabetes in 2004 and started to take tablets and then insulin as a medical treatment. At the same time, the patient was diagnosed with COPD and stent was inserted after a heart attack and morgagni hernia was reexamined. In 2015, the patient who lost 25 kg with intragastric balloon application with both sugar and weight was not successful with controlled glucose. On 11.05.2019, hernia and transit bipartition surgery was performed in a single session on 93 kg male patient with a body mass index of 42.7 kg/m^2. At the 1st and 2nd month controls, their weight was recorded as 76.2 kg and 72.8 kg, respectively.

Key words: Transit bipartition, morgagni hernia, diabetes.

SS-52

Revision of mini gastric by-pass to original anatomy

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Introduction: In this video presentation, we aimed to demonstrate a return to the original anatomy and simultaneous laparoscopic hiatal hernia operation in a patient who had undergone minigastric bypass 2 years ago.

Case Report: A 56-year-old female patient with a body mass index of 56 years was treated with laparoscopic minigastric bypass and cholecystectomy for obesity and gallbladder stone. Revision was performed 2 years after the first operation because of gastroesophagitis due to biliary reflux and patient's dissatisfaction, which started 3 months after the operation and persistently continued. In the video, repair of hiatal hernia and return to normal anatomy are shown laparoscopically.

Conclusion: Minigastric bypass is a safe and effective procedure in bariatric surgery. But gastroesophagitis due to bile reflux is one of the most controversial issues for this procedure. Revision surgery may be required in case of gastroesophagitis due to persistent bile reflux. Revision surgery is a difficult and complex procedure. Revision surgery can be completed by a laparoscopic approach with low risk in experienced centers.

Key words: Minigastric bypass, revision, bariatric surgery.

SS-53

Laparoscopic conversion of prior gastric plication and posterior fundoplication to Roux-en-Y gastric bypass for regain weight

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Introduction: Laparoscopic gastric greater curvature plication (LGGCP) and Nissen fundoplication has been presented as an alternative to laparoscopic sleeve gastrectomy (LSG) for reversible reduction of stomach capacity without gastric reduction or stapling. LGGCP reports comparable short-term outcomes to LSG regarding weight loss and complication rates.Nonetheless, there is little literature regarding its long-term outcomes.

Material and Methods: We present a case of a 48-year-old female with a BMI of 41.91 kg/m^2, who underwent LGGCP 6 years previously at another institution. Despite multiple interventions, the patient was unable to successfully lose weight. A preoperative upper GI fluoroscopy and endoscopy showed a fundus dilatation and tubular configuration of the distal stomach, and the decision was made to reverse the procedure with a Roux-en-Y gastric bypass.

Results: The plication was intact extending from the fundus to the antrum, with the sutures incorporated by scarring and fibrotic tissue. Sutures were delicately removed to form a 30-cc pouch, followed by gastrojejunal and jejuno-jejunal anastomosis.The operative time was 275 min with an estimated blood loss of 30 cc. The patient tolerated the surgery well and control fluoroscopy was negative for anastomotic leaks. Oral intake was initiated on post-operative day (POD) 2 and patient was discharged home on POD 3. At the 40-day followup, the patient had lost 22 lb., reducing her BMI to 37.64 kg/ m2. She reported tolerating her diet well, without nausea or vomiting.

Conclusion: There is a need for additional literature on LGGCP, as long term results may not be favorable. With preservation of the stomach, enlargement of the pouch can occur and reduction in plasma levels of ghrelin may not be comparable to other resection procedures. These concerns are reflected in our initial experience with revision of LGGCP to RYGB as presented in this report.

Key words: Gastric, plication, laparocopic, revisional, surgery.

SS-54

Laparoscopic sleeve gastrectomy in management of weight regain after failed laparoscopic gastric plication

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Introduction: Management of failed laparoscopic gastric plication (LGP), defined as weight regain or inadequate weight loss, is a challenging issue.

Material and Methods: A 43 year-old-male patient with weight regain after failed laparoscopic gastric plication was evaluated in a tertiary-care university setting. His last body mass index was calculated as 42.4 kg/m^2. Laparoscopic sleeve gastrectomy was planned as a revisional surgery. A floopy and plicated stomach with increased wall thickness of the greater curvature was seen. After adhesiolysis between theplicated part of stomach and the surrounding omental tissues, concomitant laparoscopic sleeve gastrectomy were performed.

Results: He was discharged on the 4th post-operative day without any complaint. At the postoperative 3rd month, her body mass index was recorded as 32 kg/m^2.

Conclusion: Revisional surgery of morbid obesity after failed bariatric surgery is a technically demanding issue. Type of the surgical treatment should be decided by the attending surgeon based on the morphology of the remnant stomach caused by previous operations. As a revisional surgery after failed laparoscopic gastric plication procedure, laparoscopic sleeve gastrectomy may be regarded as a safe and feasible approach in experienced hands.

Key words: Bariatric, surgery, revisional, gastric, plication.

SS-55

Laparoscopic sleeve gastrectomy after failed gastric plication

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Introduction: Gastric plication sometimes performed by some surgeons with unsertain results where as the sleeve gasrectomy can be effectively done to treat obesity.

Material and Methods: 40 year female with history failed gastric plication only lost 8 kilograms before 4 years ago underwent a revisional surgery where sleeve gastrectomy done.

Results: During there was a less adehsions, plicated part unfolded completley. thickening of wall evident which required the use of more thicker cartileges and operaiton copleted in 70 minutes and patiens discharged on day 3 post op.

Conclusion: Gastric plication is faced with failure most of the time. sleeve gastrectomy is effective and safe procedure to revise unsuccessful plications.

Key words: Gastric plication, sleeve gastrectomy.

SS-56

Transvers colon can be injured during omental dissection in sleeve gastrectomy

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Introduction: Sleeve gastrectomy is a kind of methood for bariatric surgery. However it can be seen during trocar placement, colon perforation during omental dissection hasn't been seen.

Case Report: Our patient is a 38-year-old woman with a body mass index of 40.2 kg/m 2 who elected to have laparoscopic sleeve gastrectomy. During the omental dissection from greater curvatur, transverse colon injured and perforated. Transverse colon was very closed to the gastric wall. We sutured the perforation with silk sutures. Omentopexy performed after repair and sleeve gastrectomy was done. The staple line sutured with absorbable sutures including omentopexy and operation finished successfully. The patient defecated in 3rd day and discharged after postoperative 5th day.

Conclusion: We can see more complications during sleeve gastrectomy. There is no data for transverse colon perforation during omental dissection. In our case, transverse colon was very closed to the gastric wall and this caused the injury. We diagnosed the complication and repaired it at the same operation. If it is miss diagnosed, it can be ended fatally. Sleeve gastrectomy can be exposed to transverse colon injury when colon and gastric wall close to each other.

Key words: Sleeve gastrectomy, colon, perforation, omentum.

SS-57

Sleeve gastrectomy with robotic duodenogejunal bypass in the surgical treatment of type 2 diabetes in non-obese patients: Video presentation of the technique

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Introduction: Medical treatment of type 2 diabetes may have inadequate clinical outcomes in the long term. The surgical option is a well-defined alternative in obese patients but the role of surgery and the type of procedure in non-obese patients is still controversial. The early results of patients undergoing laparoscopic duodenojejunal bypass with sleeve gastrectomy are impressive. In this study, we aimed to present a video of a patient with type 2 diabetes who underwent sleeve gastrectomy with robotic duodenojejunal bypass.

Case Report: A 45-year-old male patient underwent surgery in the 30° reverse Trendelenburg position. Dissection of the gastro-colic omentum was completed with a completely harmonic device. All fundus mobilization was achieved and the left crus was exposed. The 42-Fr calibration tube was placed with anesthesia. Vertical sleeve gastrectomy was completed with the aid of 4 60 mm linear stapler placed from the assistant port. The stapler line was reinforced with 3/0 V-lock suture in lembert style. Dissection of the duodenum 3 cm below the pylorus was followed by transection with a linear stapler. The jejunum was cut with a linear stapler 100 cm distal from the Treitz ligament. The distal jejunum was advanced to the duodenum and the duodenojejunal anastomosis was

double-folded with robot hand. The proximal jejunum from Treitz 150 cm ahead of this anastomosis was anastomosed to be latero-lateral with the help of the linear stapler. Operation time was 190 min including docking. At the postoperative 24th hour there was no problem in the scopy imaging. The patient was discharged on the second postoperative day.

Conclusion: The early results of patients undergoing sleeved gastrectomy with duodenojejunal bypass using robotic methods are promising for non-obese patients with type 2 diabetes. However, in order to have accurate data, more patients are needed and more importantly, long-term results are needed

Key words: Duodenojejunal bypass, metabolic surgery, robotic surgery, type 2 diabetes, sleeve gastrectomy.

SS-58

Laparoscopic revision of SADI-S

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Introduction: In this video, we aimed to demonstrate the revision of SADI-S operation performed laporoscopically approximately 2.5 years ago.

Video Content: This shows the Laparoscopic revision of a female patient who underwent SADI-S operation due to obesity and type 2 diabetes for the reasons of smelly gas and diarrhea attacks approximately 8-10 times in a day due to deep anemia 2.5 years ago.

Conclusion: Doudenal switch and biliopancreatic diversion is one of the most complex bariatric surgery operation with the strongest metabolic effects. However, due to the high number of complications, the interest on loop duodenal switch (SADI S) operations, which have been simplified is increased for the reasons of long learning curve, long duration of surgery, and anastomotic number. SADI S surgery is a more simple modification of BPD/DS surgery. In SADI S surgery, protein, vitamin, mineral and nutritional deficiency are directly related to the length of the common channel. Although the length of the common channel was initially increased from 200 cm to 250 cm and finally to 300 cm, serious diarrhea attacks, smelly gas and inadequate micronutrients may adversely affect the quality of life and social status of some patients. The most common complication after SADI S surgery is diarrhea. The maximum mineral deficiency is observed on iron, zinc and selenium. The most deficiency of vitamins is in A and D. In such cases, revision surgery will be the only alternative to solve the complaints of the patients. Increasing the length of the common channel will solve the patients' vitamin and mineral deficiency and diarrhea problems. Revision surgery can be performed laparoscopically and the patient can return to social life in a short time.

Key words: Bariatric surgery, duodenal switch, single anastomois duodenal switch.

SS-59

Combined treatment of reflux esophagitis and gastrogastric fistula after minigastric bypass

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Introduction: Inadequate weight loss and reflux esophagitis after bariatric surgery are the most important indications for revisional surgery. Herein, we report a case with reflux esophagitis and gastrogastric fistula after minigastric bypass procedure with which was managed successfully with laparoscopic revisional surgery.

Case Report: A 59-year-old female patient was admitted for reflux esophagitis. In history, there was there was mini-gastric bypass operation two years ago. She had reflux, heartburn and inadequate weight loss after surgery. hiatal hernia, alkaline reflux grade B esophagitis was detected after gastroscopy. A revisional surgery was decided. Exploration revealed hiatal hernia and gastrogastric fistula. Hiatal hernia repair, fundoplication and Roux & Y gastrojejunostomy were performed. She was discharged successfully from hospital on postoperative 4th day.

Conclusion: Revisional surgical procedures may be required after bariatric surgery for various reasons such as inadequate weight loss and reflux esophagitis or other complications. Gastrogastric fistula is one of the causes of inadequate weight loss or weight regain after bariatric surgery. Laparoscopic approach can be performed safely in revisional surgical procedure after bariatric surgery.

Key words: Bariatric surgery, gastrogastric fistula, morbid obesity, revisional surgery.

SS-60

Clinical approach of bariatric surgeons regarding opioid analgesics and postoperative analgesia in Turkey, a survey study

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Introduction: Opioid analgesics are used as a part of multimodal analgesia after bariatric surgery. However, side effects such as urinary retention, nausea-vomiting, sedation and delayed mobilization, as well as the presence of sleep apnea in most of the obese patients, make bariatric surgeons uneasy about their use and therefore they avoid them. It is also important to use the appropriate doses of opioids. When the literature is examined, the application of opioids according to ideal weight or corrected weight are the majority of practice. In this study, our aim is to investigate clinical applications and attitudes of bariatric surgeons about the use of opioids in Turkey.

Material and Methods: Sixyt nine bariatric surgeons from the total of 110, whom registered IFSO in Turkey, were included in the study. The questionnaire was sent to the participants via email and mobile application. The data were designed as a percentage slice.

Results: 30.4% of surgeons participated in the study were between 30-40 years old, 29% between 40-50 years, 20.3% between 50-55 years and 17.4% between 55-60 years. 36.2% are specialists and 34.8% are professors. 40.6% of bariatric surgeons work in private hospitals and 39.1% work in university hospitals. Among all clinics, 60.6% did not have accreditation. %91.2 of participants stated that postoperative pain treatment is regulated by a general surgeon. 55.1% of the participants do not prefer opiod analgesics for postoperative pain treatment. 56.2% did not prefer because of respiratory depression and 48.7% did not prefer because of nausea-vomiting and late mobilization. 69.6% did not use intravenous patient controlled analgesia (IV PCA) in the postoperative period and 93% applied local anesthesia infiltration to the trocar region. 42.2% were using opioids according to the patient's weight and 4.7% were using the lean body weight. Prophylactic anti-emetic use is 69.9%, and the most preferred agent is ondansetron.

Conclusion: The practice in our country support the concept of opioid-free analgesia. Current literature supports regional anesthesia and trocar site infiltration and these methods are widely used in our country. SOBA (Society of Bariatric Anesthesia) recommends the use of opioids based on lean body weight. In particular, it limits the use of morphine to 10 mg. If opioid is to be used, it should be administered in the appropriate dose range, with addition of a non-opioid analgesic. Local- regional anesthesia methods should also be used and the anesthesia and surgical team should work in a coordinated manner.

SS-61

The results of surgical decompression for peripheral neuropathy following bariatric surgery

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Introduction: Peripheral neuropathy (PN) is one of the neurologiical complications following bariatric surgery (BS). Medical treatments are generally emphasized for management of PN following BS, while surgical options are often overlooked. In this study, it was aimed to report the results of surgical decompression (SD) of the common peripheral nerve (CPN) in patients who had foot drop (FD) following BS.

Material and Methods: Medical records of seven patients who underwent to SD of CPN after BS were analyzed retrospectively.

Results: M/F ratio was 5/2, median age was 42 years (range, 22 to 54), median time to FD after BS was 9 months (range, 6 to 11), mean time to SD after FD was 13.3 days (range, 7 to 28), mean time to full recovery after SD was 40 days (range, 25 to 60).

Conclusion: SD of CPN can be seen as an effective procedure in patients with FD secondary to BS.

Key words: Bariatric Surgery, drop foot, neurolysis.

SS-62

The effect of laparoscopic sleeve gastrectomy on nonalcoholic fatty liver dasease

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Introduction: In addition to morbid obesity, investigating the effect of laparoscopic Sleeve Gastrectomy (SG) surgery on liver condition, efficiency and safety for patients with non-alcoholic origin steatohepatosis (NASH).

Material and Methods: The researches were conducted on 100 patients who subjected to laparoscopic Sleeve Gastrectomy surgery in Azerbaijan Medical University in 2014–2019. 12 (12%) of the patients were male, 88 (88%) were women, average age was 35 years (20–63 years), mean body mass - 145 kg (98–190 kg),medium Body Mass Index - 58 kg/m^2 (BMI 42 to 70 kg/m^2). NASH of the liver, alongside with morbid obesity, was registered in all patients. In addition to morbid obesity, increased insulin resistance in 30 patients, type II diabetes in 46 patients, hypertension in 38 patients, sleep apnoea in 16 patients, dyslipidemia in 42 patients, chronic calculous cholecystitis in 15 patients, were registered. For all patients Laparoscopic Sleeve Gastrectomy (SG) surgery were performed in accordance with international standards. The operation and post-operative periods for all patients were unremarkable and satisfactorily. Lethality was not registered. The hospital stay was 2–3 days. Evaluation criteria include characteristic for liver function enzymes (ALT, AST), liver ultrasonic examination and elastometry. All patients were examined with The SuperSonic Imagine Aixplorer® before and after surgery.

Results: The near results of the operation were assessed in the 1st, 3rd, 6th and 12th months after the operation and the distant ones was evaluated after 1st, 2nd and 3rd years. Our research suggests that Sleeve Gastrectomy surgery, in addition to the prevention of morbid obesity, also has a positive effect on the treatment of accessory diseases and the condition of the liver.

Conclusion: Laparoscopic Sleeve Gastrectomy surgery not only is a gold standard in the treatment of morbid obesity, but also is an effective and safe surgery for patients with Non-alcoholic Fatty Liver diseases.

Key words: Obesity, Sleeve Gastrectomy, nonalcoholic steatohepatitis (NASH), Elastometric measure.

SS-63

Reasons why iwould quit performing sleeve gastrectomy with transit bipartition

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Introduction: The number of people with obesity and type 2 diabetes mellitus is constantly increasing in the entire world. Metabolic surgery procedures are among the treatment modalities for these conditions. Among them, sleeve gastrectomy with transit bipartition (SG+TB) is a relatively novel method. The aim of this presentation is to introduce any possible disadvantages of SG+TB.

Material and Methods: The medical records of patients who underwent SG+TB were evaluated retrospectively. Research and review articles were scanned for any possible short and long-term complications of the procedure.

Results: Being an invasive procedure, every surgical intervention has its own advantages, disadvantages, and restrictions. Acute and long-term difficulties may be observed following every surgical method. There are limited reports on the disadvantages of SG+TB due to its relatively new methodology.

Conclusion: Metabolic surgery is still an evolving process, and the achievement of higher remission rates is desirable for each surgeon. The barriers can be overcomed by a well-trained and experienced team.

Key words: Disadvantages, metabolic surgery, sleeve gastrectomy with transit bipartition.

SS-64

Obesity and metabolic syndrome in Kyrgyzstan: What are the prospects for bariatric surgery in Kyrgyzstan?

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Introduction: Analysing of studies of the diagnosis of obesity and metabolic syndrome in Kyrgyzstan and identification of common ways of developing bariatric surgery.

Material and Methods: The statistical materials of INTEREPID and STEPS two studies, which underwent in Kyrgyzstan.

Results: According to WHO in 2010, Kyrgyzstan ranked last in the number of obese people: 5% of male and 14.2% of female. In recent years the situation has changed. 63.7% of respondents had IDF criteria for abdominal obesity. Multicentre studies were conducted (INTEREPID, STEPS). STEPS study (2015). The average BMI in the population was 27.4±5.9 kg/m^2, in men - 27.3±5.5 kg/m^2, in women 27.5±6.0 kg/m^2 (p=0,43). Overweight had 34.6%, grade I obesity - 18.6%, obesity grade II - 6.9%, obesity grade III - 2.5%. The frequency of obesity increased with age. Obesity increased of risk of diabetes several times.

Interepid study (2016): The prevalence of metabolic syndrome is 30.9% with the prevalence of its frequency in women (33.3%, p<0.05). Lipids metabolism disorders were constant component of the metabolic syndrome: in males, metabolic syndrome were accumulated in 64.2% of cases around hypertriglyceridemia, and in women in 52% of cases - around “arterial hypertension + obesity + reduction of high-density lipoproteins”. There are no bariatric centers in Kyrgyzstan. There are hospitals where bariatric operations are performed

with a small number of observations. An interest in bariatric surgery has emerged in Kyrgyzstan as effective direction in the treatment of obesity and type 2 diabetes. There are several schools specialists, who were trained in bariatric surgery in Russia, Germany and Kazakhstan. The following bariatric procedures have been performed at the URFA-Clinic: gastric balloon insertion, laparoscopic gastroplication and sleeve gastrectomy. Necessary to establish communications with foreign bariatric societies and experts; participate educational seminars; organize master classes; form a multidisciplinary team; conduct discussions with endocrinologists and gastroenterologists.

Key words: Obesity, metabolic syndrome, Kyrgyzstan, Prospects For Bariatric Surgery, STEPS.

SS-65

The future of bariatric surgery in Turkey and young surgeons

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One out of every five people in the world and Turkey obese and this rate increases due to changes in eating habits and lifestyle changes due to inactivity. The problems associated with comorbid diseases with obesity increase with the rate of obesity. Surgical treatment is the most effective treatment for patients who exceed the limit of morbid obesity. With the advances in technology, nowadays, obesity surgery is increasingly applied among surgeons. This leads to more frequent encounter with gastric surgeries that are not at the level of basic laparoscopic surgical training in surgical education. All over the world as well as Turkey, sleeve gastrectomy is the most applied surgical procedures. However, with the increase in performing this surgery, two major problems occurs; increased complication rates and weight gain after surgery. Controlling such situations is often very difficult for surgeons working in peripheral hospitals. For this reasons, it is not enough to deal with only one type of obesity surgery in order to increase the success of the complication management. Moreover, the development of endoscopy training will provide significant advantages for surgeons in patient evaluation and management. Apart from this, another problem in obesity surgery is the necessity to pay attention to patient selection and consequently the need for coordination with internal branches. Another problem faced by young surgeons is that they ask you to keep up with dynamic changes due to the fact that patients are more active social media users. In conclusion, an increasing problem of obesity forces surgeons to deal with obesity surgery more frequent. This shows that obesity and bariatric surgery patients will be seen more frequently in the patient population of new generation surgeon friends.

Key words: Morbid obesity, surgical education, young surgeons, complication manegement.

SS-66

Multidisciplinary team and ethical issues in BMC

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Multidisciplinary teamwork plays a major role in bariatric surgery. When considered as a whole before and after bariatric surgery, multidisciplinary approach is supported by gaining healthy eating habits and achieving optimal results with lifestyle change and maintaining weight as well. The guidelines have now identified four main areas of expertise. Surgeons, nurses, dieticians and psychiatrists or psychologists should be in a multidisciplinary team.

Surgeons act as leaders in the bariatric surgical team as individuals performing surgical technique. The team leader is attached to the hospital or clinic and is responsible for the patient's pre- and post-operative assessment and follow-up. Psychiatrists or psychologists provide a social, psychological and psychiatric assessment of the patient to determine the suitability of bariatric surgery. Dietitians take part in determining and evaluating the nutritional status of patients before and after surgery, taking and evaluating anthropometric measurements, and conducting healthy nutrition trainings. Post-operative nurses are among the team members who assist in planning interdisciplinary care, training and postoperative monitoring. Since obesity is becoming a universal public health problem, it will increase the frequency of bariatric surgical techniques, which are one of the effective treatment methods of obesity. It should be remembered that bariatric surgery is a team work and it is emphasized that patients should be handled with a multidisciplinary approach. An expert dietitian team in the field will always have a major role to play. Nutritional status before and after surgery, evaluation of anthropometric measurements, improving patient outcomes, early detection and prevention of possible nutritional complications should guide patients. It should be remembered that the experienced dietitian and multidisciplinary team approach will achieve more successful results with a systematic nutritional care process specific to patients.

Key words: Obesity, nutrition, bariatric surgery.

SS-67

Protein: Whey protein

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In the postoperative period, patients are at risk of protein deficiency and loss of lean body mass. To make bariatric surgery a safer procedure, the risk of malnutrition needs to be reduced. There are studies indicating that early protein supplementation positively affects body composition and does not adversely affect renal function in the bariatric surgery patient group in the postoperative period. In the first months after surgery, the targeted protein amount cannot be reached due to gastric volume. Considering that it can tolerate only 2/3 of the targeted protein, it is emphasized that 15–35 gr protein/day support is required. According to the guidelines of the American Association of Metabolic and Bariatric Surgery (ASMBS), the recommended amount of protein after surgery should be calculated to be at least 60 g to 1.5 g/kg of ideal body weight per day, and should be included in the nutritional program considering the person's daily nutrient consumption and physical activity level. The maximum amount of protein should be 2.1 g/kg of ideal body weight. The preferred protein supplement should contain 14–25 g of protein, the energy should not exceed 150–250 kcal, should contain less than 5 grams of sugar, less than 5 grams of fat, and as few additives as possible. Whey, soy and egg protein should be preferred as protein source.

Key words: Bariatric surgery, whey protein, nutrition.

SS-68

Nutritition of gastric band

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The reasons underlying the necessity for treatment with bariatric surgery are based on our survival genes the date back millions of years ago. Gastric band was first disvovered by Wilkinson and Peloso in 1978, then, adjustable gastric band technique was found by Halberg and Forsell and Kuzmak in the early 1980s. Adjustable inflatable bands increased patient compliance, meanwhile, reversibility of laparoscopically performed procedure helped to rapidly widespread. Although it was the second most commonly performed procedure in 2008 (42.3%) according to IFSO, it was reported that the frequency of gastirc band was gradually decreasing according to 2016 data, it was the fourth most common procedure representing approximately 3.0% of all bariatric surgeries performed. Laparoscopic Adjustable Gastric Band (LAGB) is accepted by FDA for patients with BMI 30–35 kg/m^2 and Type 2 diabetes or other obesity-related comorbidities. However, some problems such as vomiting, withdrawal, gastroesophegeal reflux have been reported after LAGB. Evaluation of nutritional status of patients before and after bariatric surgery is very important in terms of detecting nutritional deficiencies and preventing postoperative nutritional complications. Nutritional deficiencies are more common in surgical procedures affecting digestion and absorption. Restriction of food intake, postoperative nonadherence to diet, vomiting and food intolerances are risk factors for complications due to some nutrient deficiencies such as folic asid and thiamine after LAGB. Although LAGB is an easily applicable, reversible, adjustable, and short-term successful weight loss, long-term weight loss results of LAGB are lower than gastric bypass and sleeve gastrectomy. However, it should be kept in mind that bariatric surgery is not the definitive solution for obesity. Malnutritition and maintenance of sedentary lifestyle will cause weight regain. According to the AACE / TOS / ASMBS 2013 guideline, the importance of multidisciplinary approach to postoperative nutrition education, physical activity status and behavior change is emphasized.

Key words: Gastric band, obesity, nutritition.

SS-69

Enteral-parenteral nutrition in bariatric and metabolic surgery (BMC)

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Introduction: Enteral and parenteral nutritional support therapies can be administered to bariatric and metabolic surgery (BMC) patients. The dietician should determine the nutrient requirements specific to the BMC patient by choosing the appropriate nutrition method. In this article, enteral and parenteral nutrition support in BMC is discussed.

Enteral - Parenteral Nutrition Supplement: Risk of infection after BMC creates glucose and acid-base imbalances, fluid - electrolyte disturbances, long-term nutrient deficiencies. Therefore, macro and micro nutrient status should be carefully monitored. If the patient does not have adequate oral intake for 5-7 days, nutritional support is given for 7-14 days. If the gastrointestinal system is normally, enteral nutrition is given. If not, total parenteral nutrition or peripheral parenteral nutrition is given. Nutritional status should be assessed according to the American Society for Metabolic & Bariatric Surgery (ASMBS). The energy requirement should be determined by indirect calorimetry or by energy equations (Haris Benedict or Schofield). The American Society for Parenteral and Enteral Nutrition (ASPEN) recommends

hypocaloric, high-protein nutritional support (enteral-parenteral nutrition) in BMC patients with metabolic balance. The bariatric enteral product must be meet the macro and micro nutrients and the liquid (1 kcal/ml and NPE / N=43: 1).

Conclusion: Enteral-parenteral nutrition may be given to BMC patients, if it is necessary. Macro and micro nutrients should be provided. Biochemical monitoring is required to assess their inadequacy.

Key words: Enteral and parenteral nutrition, bariatric and metabolic surgery, nutrient requirements.

SS-70

Dietitian's role in bariatric and metabolic surgery (BMS)

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Bariatric surgery patient's should be evaluated very well in terms of nutritional and clinical status and lifelong follow-up is required by BMS multidisciplinary team. The team's dietician should plan appropriate nutritional therapy and nutritional support for patients. Lifelong physical activity should be maintained. The paper emphasizes the planning of nutritional therapy in patients with BMS and the role of the dietician.

The Role of Dietitian: The long-term and successful outcome of the surgery depends on the patient's lifelong nutritional and lifestyle changes. Dietitians are members of the BMS team and follow-up of the nutritional status of patients is important for increasing postoperative success. Their role is to evaluate the nutritional status of the patients according to the preoperative and postoperative guidelines of the ASMBS and to provide diet counseling in the postoperative period. Dietitian interviews are mandatory in the first postop year and are then optional. Diet follow-up should be done before the surgery and after surgery for 5 years. Although studies on long-term follow-up are insufficient, a lifelong follow-up is recommended (1). Dietitian and patient; preop and postop, should act together in the preparation of nutritional plan and supplements of nutrients that are found to be deficient in laboratory tests (2).

Results: Bariatric and metabolic surgery is the most effective tool for achieving weight loss and maintaining weight control for morbidly obese patients. Careful screening and follow-up by a multidisciplinary team will help improve outcomes and select appropriate patients. Patients should be encouraged to maintain adequate nutrition by the dietician.

Key words: Dietitian, bariatric surgery, team, nutrition.

SS-71

Should be a ketogenic diet made in liver reduction before BMC?- No

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Introduction: In bariatric and metabolic surgery (BMC), the dietician should evaluate the nutritional status of the patient during the preoperative period (preop) and educate them. Scientific studies have shown that preoperative weight loss reduces postoperative complications and improves liver parameters. In this article, we evaluated the effect of diets in preop to reduce liver volume in patients undergoing BMC.

Diets used in before BMC for liver reduction

Diets are used in preop with morbidly obese patients. These:

1- Very low calorie diets (VLCD) is 400–800 kcal/day and most are liquid; 2- No energy restriction; 3-Less restricted calorie values 800–1500 kcal/day; 4- Low energy; 5- Mediterranean; 6- Ketogenic diets. It was reported that they are administered for 10 days-12 weeks. There is no consensus on the ideal characteristics and duration of diets. These diets prepare the patient for surgery; constitutes rapid weight loss; liver size, visceral fat, surgical risks, blood loss in the transoperative period, duration of surgery and reduce the risk of surgical complications. Diets containing 30–130 g of carbohydrate per day have been shown to be successful in weight loss. Ketogenic diets containing <30 g carbohydrates per day are also safe; however, it may not be suitable for all patients. It was found that pre-BMC, low-fat diets and moderate ketogenic diets lost more weight. It was observed that low carbohydrate diets provide faster weight loss compared to low fat diets and both diets have the same effects in the long term. Because low-carbohydrate diets will have long-term adverse effects, the physician and dietitian should be in control and follow-up.

Conclusion: There was no correlation between the decrease in liver volume, the length of diet and the lack of energy. The importance of the macro nutrient content of the diet is emphasized.

Key words: Ketogenic diet, bariatric and metabolic surgery, preoperative period, reduced liver.

SS-72

Preoperative nutrition assessment for bariatric and metabolic surgery patient

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Preoperative assessment of bariatric and metabolic surgery (BMS) patient is an important role of dietitian in multidisciplinary team. For preoperative evaluation, Nutrition Care Process from Academy of Nutrition and Dietetics is suggested. This process is made from four steps, which are; nutrition assessment, nutrition diagnosis, nutrition intervention and nutrition monitoring and evaluation. For nutrition assessment stage, data is collected from patient either directly asking or via medical test such as blood test. Data is collected under sub groups; nutrition focused physical assessment, biochemical data, medical tests, procedures, anthropometrics, foos/nutrition related patient history and patient's medical history. Collected daha is used for nutritional diagnosis. Nutritional diagnosis is differs from medical diagnosis. The nutrition diagnosis includes a nutrition problem utilizing standardized nutrition diagnosis terminology, associated etiology(ies), or "root" cause(s), the significance, and signs and symptoms associated with the problem. Nutrition diagnosis leads to nutritional intervention which includes multiple approaches to manage the situation and solving the situation. After intervention nutritional monitoring and evaluation is needed to follow up of the patient as improvement and to repeat the procedure if it is needed. Dietitian plays role collecting and assessing of nutritional data managing/resolving the result of nutrition diagnosis, determining the cause of the nutrition diagnosis, identifying best symptoms of changes in nutrition status.

Key words: Bariatric surgery, nutrition care process, dietitian, nutrition, nutrition assessment, nutrition intervention.

SS-73

Intuitive eating for preventing and managing weight regain

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Intuitive eating is a diet - free approach for loosing and maintaining weight. This modal is focuses on body's hunger and satiety signals as well as nutritional physiology. Field of intuitive eating as it can be used for treatment of eating disorders. After bariatric surgery, encouraging patients for intuitive eating is suggested in ASMBS dietary guidelines. At the early post operative stage, because of ghrelin decline, awareness of hunger could be challenging for many patients. Dietitian's role should involve to give understanding to patient of being aware of hunger and satiety by observing new body. Instead of labeling food or even themselves, nutrition education is essential for ensuring consciousness for patient. Intutive eating is promising and growing field for bariatric nutrition.

Key words: Intuitive eating, bariatric surgery, weight regain.

SS-74

Surgical complications

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Case 1: A 45-year-old female with a body mass index of 43 kg/m^2 was scheduled for sleeve gastrectomy. In this study, a video of the patient with duodenal injury was presented.

Case 2: A 35-year-old male with a body mass index of 47 kg/m^2 underwent sleeve gastrectomy. In this study, we present a video of the patient with a opening staple line during the operation. In such cases, more attention is required form the begining of the operation to the end. Attention should be paid to the surrounding tissues and organs during dissection. Suitable tools should be used. Choosing the right thickness staple is extremely important. Adequate experience required for complication management.

Key words: Sleeve, complication, surgery, laparoscopy.

SS-75

Who do have bariatric surgery? Indications and contrindications

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Obesity is defined as an abnormal or excessive accumulation of fat that may impair health. According to World Health Organization (WHO), any individual with a body mass index (BMI) greater than or equal to 30 kg/m^2 is obese and severe or class III obesity is defined as a BMI equal to or greater than 40 kg/m^2; this term is also used for individuals with a BMI between 30 and 39.9 kg/m^2 who have significant comorbidities. National Institute of Clinical Excellence (NICE) has recommended bariatric surgery for such individuals. Patients BMI between 35–39,9 kg/m^2 with comorbid condition and BMI above 40 kg/m^2 without comorbid conditions are candidates for bariatric and metabolic surgery. However, all patients as candidate for surgery should have undergone strict diet and

behavioral treatment before surgery. Also the patients are assumed to commit to obey lifelong followup after surgery. Criteria for surgery vary from country to country. The decision to recommend bariatric surgery must be based on risk–benefit ratio along with other factors including psychosocial health, adherence, expectations and cost. Contraindications to surgery include an extremely high operative risk, active substance abuse or a major unstable or uncontrolled psychopathological condition such as major depressive disorder, schizophrenia or bulimia. Patients who have recently have had a serious life-events such as death of a family member, should have their surgery delayed until they have had a chance to deal with this. All patients who are considering weight loss surgery should undergo a comprehensive assessment by the multidisciplinary weight management team. The American Diabetes Association -ADA however does not recommend bariatric surgery in T2DM patients with a BMI <35 kg/m 2 except within a research protocol. Appropriate patient selection is one of the key steps to the success of any bariatric surgery. It is of utmost importance to assess individual patients in a multidisciplinary setting to enable appropriate patient selection. There is no irreversible absolute contraindication to bariatric surgery.

SS-76

Interaction between bile and lipid metabolisms as a treatment modality which is resolving nash following bariatric surgery

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Occurs when hepatocyte fat accumulation exceeds 5%. Obesity is associated with elevated serum bile acid levels. Various histological subgroups of NAFLD progression are:

1. Simple fatty liver disease (steatosis), reversible by weight loss. (67% of overweights, 47–94% of Obese and 90–99% of MO). 2. Non-alcoholic Steatohepatitis (NASH) (13–56% MO) (risk of progressing to Cirrhosis= 8–15%). 3. Fibrosing NASH. 4. (1.5% of steatosis develop) Cirrhosis. 5. Hepatocellular Carcinoma (the risk for NASH of progressing to HCC 1–2%).

NASH: It is the progression of HAFLD. Characterized by an inflammatory cell infiltrate into the liver parenchyma, hepatocyte damage occurs, called 'ballooning degeneration'. Lobular inflammation, pericellular fibrosis are the other two characteristic histologic feature of NASH. Mechanisms of Action of Bariatric Surgical Procedures. In Roux-en-Y gastric bypass (RYGB) and biliopancreatic diversion (BPD), shortened route of the enterohepatic circulation (the biliopancreatic limb and the common limb) expedites the contact of luminal bile acids with the ileum, a major area for bile acid reabsorption, leading to earlier and more active bile acid reabsorption. It has been speculated that the length ratio of the biliopancreatic limb and the common limb represent a major determinant of postoperative serum bile acid concentrations. Postoperative serum bile acid concentrations are likely to be greater with longer biliopancreatic limb and shorter common limb, as evidenced by both animal and human studies. Biliary diversion induces significant weight loss, a decrease in fasting serum glucose, a reversal in hepatic steatosis, an increase in serum GLP-1 and an elevation in fasting serum bile acid levels. Interestingly, these effects were not dependent on the length of the small bowel bypassed.

Conclusion: Bile acid metabolism and signaling has an important role in integration of hepatic lipid, glucose, and energy metabolism. Bile acid and lipid metabolisms interaction through the signal transduction mechanism is responsible for the effects of the bariatric and metabolic surgical procedures. These effects work different and are free from the weight loss mechanisms of surgical procedures.

SS-77

The new concept of stapleless gastric bypass

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Introduction: To evaluate the new concept stepleless gastric bypass without anatomical dissection of the stomach wall.

Material and Methods: The new concept includes the creation of a gastric pouch without anatomical intersection of the stomach wall. We called this procedure as: Obstructive Stapleless Pouch and ANastomosis -OSPAN. All patients were performed one-anastomosis gastric bypass. Patients with morbid obesity (n=60) were operated from July 2015 to December 2018 and were divided into three groups. The first group "OSPAN1" included patients for which was used an adjustable band (n=20). The second group "OSPAN2" included patients for which was used a non-adjustable band (n=8); The third group "OSPAN3" included patients for which was used obstructive gastroplication (n=32). In all three groups, a hand sew two-row gastroenteroanastomosis 20 mm wide was created.

Results: No was mortality in all groups. In the OSPAN2 group, there was revision surgery in 5 out of 8 patients 3–5 months after the primary operation. The main cause of redo was not tightness between the gastric pouch and the bypassed part of the stomach. For this reason, weight was not significantly reduced. It was decided to exclude from the study all 5 pa-

tients of OSPAN2 group and discontinue further enrollment in this group. And was decided not to compare the weight loss results with other groups. There was no revision surgery in the OSPAN1 and OSPAN3 groups. Baseline body mass index in OSPAN1 group was 40.6±5.6. kg/m^2 vs 41.6±6.18 kg/m^2 in OSPAN3 group (p>0.05). Body mass index after surgery in OSPAN1group was 26.3±3.2 kg/m^2 vs 26.36±4.0 kg/m^2 in OSPAN3 group (p>0.05). %TWL was 34.1±9.0 in OSPAN1-group vs 36.12 ± 9.0 in OSPAN3 group (p>0.05). %EBMIL was 94.3±23.6% in OSPAN1group vs 95.32 ± 24.91 in OSPAN3 group (p>0.05).

Conclusion: A stapleless creation of gastric bypass is feasible and effective for bariatric surgery.

Key words: Obesity, bariatric surgery, stepleless gastric bypass.

SS-78

A rare case: Remnant stent

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Sleeve gastrectomy is most common obesity surgery procedure in the world. Most dangerous complication of this surgery is leakage(%2.4). This complication usually occurs at proximal part. Sometimes reason is uncertain but generally factors such as tension of anastomosis,ischemia oftissue, thickness of tissue,blood build up may be the reason and technically if distal stomach (incisura angularis)gets tight that proximal stomach (cardioeusophagial) pressure increases and that causes seconder leakages. Besides it is seen 2.4% in SG, leakages are important morbidity and mortality reasons. So many techniquesare tried on its treatment. As a treatmant endoscopic stent is first of these choices. These stents are teflon plated wich is resistant to stomach acid. Double stage shoulders stents (as DUMMBLE)decrease migration rate minimum levels. Our patient 45 years old female, BMI: 45 kg/m^2 no extra disease. Sleeve gastrectomy was performed. She was externed post operative 3. day. She came our linic with fever,tachicardia and pain on pos op 7.day. At CT imagination extrlumination was detected at gastroeusophagial region. Bariatric stent performed. 5 weeks later after oral contrated tomography there was no problem (Fig. 1) and than stent was taken. Leakage test performed with metilen blue. After these tests she was alowed to drink and eat and externated. Patient whose vomiting went on after taking stent has gone to an other center. In gastroscopy it was seen that distal part of stent was ruptured and obstructed duodenum partially (Fig. 2). Endoscopically remnant stent removed (Fig. 3). After stent removal no problem was seen.Healing after stent removal is reported so high as 85% and over in so many studies. But after removing stent patients surely should be followed and if it is neccesarry control gastroscopy and control abdomen CT should be performed.

Key words: Sleeve gastrektomy, complication, bariatric stend.

Figure 1. Pre-endoscopy tomography image.

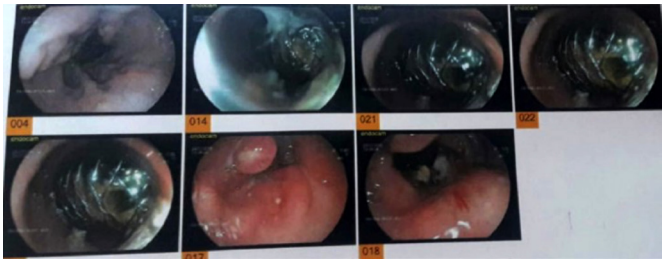

Figure 2. Endoscopic image.

Figure 3. Remnant Stend.

SS-79

Transgenerational obesity: Relationship between family obesity and childhood obesity

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In the last decades there are reports regarding a dramatic increase in the incidence of childhood obesity, particularly in western countries. On the basis of etiology, obesity is subdivided into two groups as exogenous and endogenous. Exogenous obesity is usually result of increased high fat and high caloric food consumption and decreased physical activity. Whereas endogenous obesity may be emerge from causes as endocrinopaties, monogenic obesity syndromes and other genetic syndromes. Already known genetic causes of monogenic obesity and syndromes with obesity are inadequate to explain all of the transgenerational obesity. There is an urgent need to understand the factors that contribute to this increase in obesity in order to find new tools that will improve quality of life in affected individuals and to avoid the propagation of obesity to future generations. Nutrition, toxins, microbiota and uteroplacental factors may have effects on epigenetic changes which contribute obesity development in future generations. Several types of epigenetic modifications have been identified. Modification of nucleosides in DNA such as by methylation and hydroxymethylation, and post-translational modification of histone proteins, and changes in small noncoding RNA expression are types of epigenetic mechanisms. In this lecture, evidence about the potential mechanisms of transgenerational effects of obesogens (like diet and exercise) and obesity epidemic is discussed.

SS-80

Controversial issues in bariatric metabolic surgery in adolescent patients based on a case

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13-year-old male patient admitted to hospital with complaint of excess weight gain. His clinical examination revealed acanthosis nigricans over the nape of the neck and axilla. He has no dysmorphic features and mental retardation. He was prepubertal and his height was 166 cm (0.66 SDS), weight 128 kg (4.37 SDS), body mass index: 46.2 kg/m^2. Fasting blood glucose was 113 mg/dL, two hour postload glucose during oral glucose tolerance test 194 mg/dL and HbA1C: 6.2%. Cushing's syndrome and hypothyroidism were excluded with normal hormone profile. Diet and exercise have been suggested, and metformin and orlistat therapy were started. Laparoscopic sleeve gastrectomy was performed because of progressive weight gain in the six-month of follow-up. The patient did not attend regular follow-up. It was learned that he lost 40 kg in weight after the first year of surgery with a phone call. Despite few guidelines were exists, there some of controversial issues in bariatric metabolic surgery in adolescent patients. Based on management of the case which was present in this abstract, the controversial issues will be discussed during presentation.

SS-81

Early and late complications and management after obesity surgery

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Obesity is rapidly increasing globally threatining human health, and it is an important risk factor for many problems such as cardiovascular diseases, diabetes mellitus, mental and physical disorders. In the treatment of obesity, bariatric surgery is considered to be the most effective method for successful weight loss and correcting comorbidities. The quality of life of the patients seen to lose weight after surgery increases and the mortality rate decreases allied to obesity. All these positive effects depend on the success of the surgical procedure as well as the patient's adaptation to lifestyle changes and the quality of multidisciplinary holistic care. If patient care and follow-up is not performed multidisciplinarily in the postoperative early stage / long term carefully, serious complications may occur which may impair the quality of life of the patient. The early postoperative period includes the first 30 days, while it is termed as postoperative twelve months and later, postoperative late period. In the early postoperative period, cardiovascular parameters and respiratory status should be monitored first. Early complications include bleeding, leakage, pulmonary embolism, deep vein thrombosis, infection, diarrhea or constipation. Complications that may occur after the first 48 hours may include anastomotic leakage, pulmonary embolism, deep vein thrombosis, stenosis, wound infection, chronic diarrhea or constipation, gallstone formation and nutritional deficiencies. Findings of possible complications in nursing care should be monitored. In this direction, monitoring of life signs, monitoring of drain and wound site, early mobilization, maintenance of fluid electrolyte balance, early period signs of complications such as pain, vomiting, tachycardia, tachypnea, hypotension, chest and leg pain and shortness of breath should be evaluated. In order to prevent late postoperative complications, the

bariatric surgical team is required to monitor the patient on a regular basis by telephone and face to face for at least two years, according to the needs, the severity of the bariatric procedure and other comorbidities. The patient should also have access to the surgeon, dietician and nurse when needed. Patients' follow-up includes management of metabolic changes and diet plan. In this presentation, treatment and care approaches for early and late complications after bariatric surgery will be summarized with evidence levels.

SS-82

Patient assessment and preparation before BMC in the light of guidelines

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Bariatric surgery is the most robust treatment for extreme obesity. Bariatric surgery is now recognized as the most effective procedure to treat patients with obesity and obesity-related co-morbidities as well as resulting in significant short and long-term savings in costs of healthcare resource utilization. Before bariatric surgery requires careful consideration. There are many international society/association/organizations that publish guidelines and conduct studies for patients assessment and care before and after bariatric surgery. These; Guidelines/European Association for the Study of Obesity (EASO), International Association for the Study of Obesity (IASO), International Society for the Perioperative Care of the Obese Patient (ISCOP), Society American Gastrointestinal Endoscopic Surgeons (SAGES), American College of Surgery, International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO), American Association of Clinical Endocrinologists (AACE), American Association of Metabolic and Bariatric Surgery (ASMBS), The Obesity Society (TOS). "IFSO Guidelines for Safety Quality, and Excellence in Bariatric surgery" was stated characteristics and quality standard of bariatric surgery team and hospital. Indications of bariatric surgery was explained in AACE/TOS/ASMB guidelines. Also co-morbidities management, preoperative assessment were stated detailed in the same guideline. EASO was explained to multidisciplinary obesity management in adult. European guideline for obesity in adults was defined to intervention types (lifestyle change, dietitian consultation, surgery) according to BMI. One of the controversial issues in the literature is the necessity and efficacy of weight loss program before bariatric surgery. In the studies conducted, it was stated that weight loss programs were effective in losing weight before surgery but did not affect postoperative complications. These programs my increase patient compliance. According to ASMBS guideline, there is no RCT, systematic review, meta-analysis and prospective studies showing the effectiveness of preoperative weight loss application required by health insurance. In contrast, this practice delays the treatment of patients and delays the control of life-threatening co-morbid diseases. Predicting postoperative complications after bariatric surgery is found three or more co-morbid deaseses occurrence in the patients. The most effective predicting factor is found chronic obstructive pulmonary disease. Also, diabetes mellitus, obstructive sleep apnea and previous surgery were identified as predictors of preoperative weight loss. In conclusion, a more detailed assessment is needed to identify the indications before bariatric surgery. Also, it is needed to standard and effective obesity management interventions program before decide to bariatric surgery.

SS-83

ADA bariatric surgery guideline

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The role of the dietitian is of remarkable importance in bariatric surgery operations which are becoming increasingly common. The dietitians are involved not only in preoperative weight loss diet processes, but they also work for diet programs which is about transition from pre-operative clear liquid diet to the post-operative the solid diet. Also they make long-term dietary arrangements for patients after the operation. Since the requirements might differ for each patient, more detailed information could be needed than cursory information. Hence, this guide provides step-by-step strategies to operate less risky surgeries. In addition, this guide answers the question of how to prevent unwanted complications while achieving weight loss. In conclusion, the information in this book is based on scientific research. Therefore, it could be used as a guiding tool for health professionals working in the bariatric surgery field.

Key words: Bariatric surgery, dietitian, guideline.

SS-84

Collagen use in patients after bariatric surgery

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Collagen is one of the most common structural proteins found in humans. It constitutes 25–35% of all proteins in the

human body. Collagen, which plays an important role in the structure of various tissues such as skin and bones that provide hardness and integrity, is one of the most basic proteins that make up 75% of the proteins in human skin. Collagen fibers, which fill the gaps between tissue cells, are produced by fibroblasts in the skin and form a dense network in the dermis to give structural integrity to the skin. Collagen and elastin form the extracellular matrix, providing the structure, elasticity, brightness, firmness and softness of the skin. Significant physical and metabolic changes are seen in the skin and collagen structure of obese patients. In addition, significant clinical deterioration of the skin turgor is also observed due to decreased elasticity of the skin and progression of weight loss.after bariatric surgery. Studies have shown some abnormalities in the collagen structure of the skin tissue of patients with bariatric surgery. When the extracellular matrix is examined, it has been shown to have a looser structure than normal skin tissue. In addition, an irregular, thin and disrupted collagen network has been shown, with a significant reduction in the thickness of the collagen bundles. After significant weight loss in postbariatric surgery patients, the structural composition and molecular organization of collagen becomes irregular. The use of collagen is recommended to prevent skin laxity and natural collagen production in these patients. In conclusion, collagen peptides are recommended in postbariatric patients because they are easier to digest. Thus, by increasing the fibroblasts in the dermis and stimulating the mobility, an increase in the density and diameter of the collagen fibers is aimed to provide the structural integrity of the skin.

Key words: Morbid obesity, bariatric surgery, collagen, skin.

SS-85

Preparation and management of morbidly obese patient in the operating room

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The World Health Organization (WHO) defines obesity as "abnormal or excessive accumulation of fat in the body to the extent that it impairs health." According to the estimates of Non-Infectious Diseases Risk Factors Collaboration Group, the age-based standardized obesity prevalence in the adult population worldwide from 1975 till 2014 increased by three times in males, and doubled in females. According to the Turkish Statistical Institute (2016), the obesity prevalence in the adults over 20 years of age is 29.5 percent. The life style therapy, drug therapy and surgical treatment can be counted among the treatment methods in the Morbid obesity. During the preparation and management of Morbidly obese patients for the operating room, the patient safety measures should be taken (e.g., verification of the identity, checking the consent form, going over the safe surgical checklist, doing the time out). The risk of falling increases because of the excessive body weight and wide body surface in these patient groups. For the surgery of the obese patients, the operating table should be widened with side attachments, and it should be able to carry 500–1000 lbs. weight. It should definitely be used roll boards during the transfer of the patient. The patients should be fastened to the operation table by fixing belts. The obese patients are at risk of developing pressure ulcers due to difficulty of their movements and tissue hypoxia. Especially, the fat tissue is very susceptible to infection. In these patients, the easiness of wound separation poses a risk for infection. Therefore, it should be behaved according to the principles of surgical asepsis. The entire team should know the surgical operation, the ideal position for the patient, the physiological effects of the position, the time necessary for the position and the anatomical limits of the patient to give a safe and accurate position. Due to the large body mass and excess fatty tissue under the skin of the obese patients, it increases the risk of forgetting alien objects; hence, it becomes very important to track the materials used during the surgery. In order to prevent hypothermia, the irrigation fluids should be at the appropriate temperature; the room temperature should be between 20–23 degrees Celsius; the patient heaters should be used; the intravenous fluids, blood and blood products should be in appropriate temperature. In order to prevent venous thromboembolism, antiembolic socks or sequential compression devices should be used to provide continuous pressure to the lower extremities.

SS-86

Intraoperative instruments and points to be considered in use during laparoscopic obesity surgery

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In recent years, obesity is one of the leading diseases of our age, has increased in prevalence. Anti-embolism socks can be used in low and medium risk groups and pneumatic compression device can be used in high risk group for Pulmonary Thrombo Embolism (PTE) prophylaxis. Longer laparoscopic instruments should be kept on the surgical table in the obese patient group. Radiopaque materials are preferred to prevent gossypibioma. As the working areas in the abdomen change, the position of the surgical team around the operating table changes as well. Double monitors or ergonomic laparoscopic systems should be used in the operating room to provide more

comfortable laparoscopic imaging. An automatic liver retractor should be available in the table both to reduce the need for assistance and organ injuries. In order to minimize the effects of pneumoperitoneum on the respiratory system, the parameters of the insufflator device should be kept optimal settings. In order to prevent intraabdominal organ injuries and shorten the operation time, an optical trocar should be kept on the surgical table. During gastric excision, the gastric lumen may be opened and intragastric bacterial flora may contaminate the wound and intraabdominal space. Infections can be prevented by using the specimen extraction bag. The highest risk of trocar site herniation among the patient groups are obese patients. Therefore, current guidelines recommend that trocar incisions of 5 mm and larger should be closed by suturing. For this reason, port closure devices that facilitate fascia suturation should be available. As a result, the preparation of the instruments used in obesity surgery, a more comfortable course of surgery can be achieved and also the survival and quality of the patients can be improved by preventing intraoperative complications due to the care and attention of the surgical nurses.

SS-87

Role of nursing in multidisiplinary team in bariatric surgery & ethical problems

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Bariatric surgery is becoming more common. Patients in bariatric surgery units are managed by surgeons, nurses, doctors, dietitians, psychologists and a multidisciplinary team (MDT) who contribute to preoperative and postoperative care. The role of nurses in bariatric surgery and bariatric patient care is very important. The nurse is an integral part of bariatric MDT, which provides support and training to patients and advocates both before and after surgery. The nurse has important roles in communicating about important decisions, providing education, building trust, and fulfilling responsibilities with patients and their families. It is increasingly important that nurses understand the indications for these alternative treatment modalities as the options for medical and surgical treatment become more complex and are readily available. Applying treatments and providing equipment that will not improve the patient's condition interferes with the beneficial nature of care and may in essence threaten therapeutic confidence. Feeling that they are "doing the right thing" is important to those in the caring profession, particularly nurses. Obesity is an important global health problem. Obesity-related comorbidities (eg diabetes mellitus type 2 and cardiovascular disease, liver steatosis, sleep apnea) are multi-systemic and require continuous medical management, which puts great pressure on the health system. As the prevalence of obesity increases globally, the demand for bariatric surgery increases. An attempt to balance the potential risks and benefits of a relatively new treatment, such as bariatric surgery, is a concern for many nurses. In research, burden discussions against this benefit may raise ethical concerns for nurses involved in the care of bariatric surgery patients. Nurses experience many ethical concerns about bariatric surgery and aspects of education deficit in health ethics. Examples of this information deficit include lack of information, informed consent in bariatric surgery patients, inequality of access to obese low socio-economic status groups requiring bariatric surgery, and lack of access to treatment due to lack of private health insurance. However, discussions of benefit and burden can also be described as an ethical concern. As a result; while bariatric surgery is becoming more common, there is a lack of definition of the role of nurses in patient care in bariatric surgery. Patients undergoing bariatric surgery require extensive care not only because obesity is a complex condition but also because of the possibility of comorbidity. Nurses have an important role in the bariatric multidisciplinary team. However, it is very important that nurses take care according to ethical principles. Respect for human beings includes basic ethical principles and patient rights. These; information, confidentiality, decision-making autonomy, the storage of private information and the right to ensure the safety of the patient.

SS-88

Current approaches in bariatric surgery

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Current situation in obesity? Worldwide obesity increased three fold since 1975. In 2016 over 1,9 billion people over age 18 are overweight or obese. Even worse 41 million children under age 5 are identified to be overweight or obese making the future pessimistic about this pandemic (1). Although obesity is a preventable public health issue until now we failed in the control and if this trend will continue world's population will be in the obesity range and more bariatric and metabolic procedures will be performed. Obesity is not only a disease by itself but also triggers many important related diseases. These are mainly type 2 diabetes mellitus, cardiovascular disorders, obstructive sleep apnea, hypertension, metabolic sydrome, increase in some cancers such as colorectal and endometrial cancer, steatohepatitis and joint disesases. Bariatric surgery as the most effective treatment. Bariatric surgery is proven to be the most effective and durable treatment of morbid obesity. While reducing weight,

bariatric surgery also improves many metabolic and cardiovascular diseases as well as reducing cancer incidence and overall increasing the life expectancy of operated patients. These also results in control of heath related expenditures. Current bariatrik and metabolic surgery indications: after falilure of a structered weight reduction and morbidty reduction program including life style and diet changes morbid obesity patients with BMI over 40 and with obesity related morbideity and BMI over 35 should be evaluated for surgery. Also patients in the range of BMI of 30–35 with uncontrolled metabolic or obesity related disease mainly type II DM also should be considered for surgical approach. Adolescants and elderly patients should be evaluated and if nededed operated by experienced teams in these age groups. Age alone is not a contraindication for operation. Current bariatric/metabolic surgical options: According to 2014 data 580.000 prosedures were performed annually. Sleeve gastrectomy takes the lead and followed by Roux en y gastric bypass and laparoscopic adustable banding with biliopancreatic diversion performed to a lesser extent. New coming procedures such as single anastomosis duodenoileal bypass, minigastric bypass or ileal interposition operations still neede to be evaluated with well designed studies in the long term before coming to routine use. Although bariatric surgeries are highly effective and safer than many major operations, weight regain and recurrence of comorbidities after a remission period are still important problems in a subgroup of patients as an issue to be solved.

SS-89

Obesity epidemiology in Turkey

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The World Health Organization (WHO) defines obesity, which has been a focus of attention since Hippocrates and has become an increasing problem over the years, as "the presence of abnormal or excessive fat in the body to the detriment of health" and body mass index (BMI) between 25–29.9 is considered as overweight. According to BMI, obesity is defined as three categories; 30–34.9 kg/m^2 is obese, 35-39 kg/m^2 severely obese, BMI; ≥40 kg/m^2 is defined as morbidly obese. According to this classification of the World Health Organization, Turkey's population is thought to be evaluated in the overweight category. Because of the data on obesity in the adult population of the meta-analysis of 12 epidemiological studies which was carried out in the last 15 years in Turkey, with BMI 27.3 kg/m^2; it's calculated as 28.0 kg/m^2 for women and 26.5 kg/m^2 for men (Ural et al. 2018). The worldwide prevalence of standardized obesity in the adult population aged 18 years and over, increased from 3.2% in men and 6.4% in women in 1975, to 10.8% in men and 14.8% in women in 2014. According to the 2015 report of the Global Burden of Disease Obesity Collaboration Group, the world's obese population is 711.4 million; 107.7 million of them are children and 603.7 million of them are adults. According to World Health Organization (WHO) estimates, in 2016, 39% of adults were overweight and 13% were obese. So no matter where we look, the problem is big. Although it is perceived as a problem of high-income countries, the forecasts show that obesity will also increase rapidly in developing countries. The prediction is, in 2030, in many countries the prevalence of obesity will reach 50%. These data show that obesity is the most important social epidemic of the 21st century. Obesity, which adversely affects human life as a whole, is the second major risk factor for early death in Europe and North America after smoking. Approximately 2.8 million people die each year due to overweight or obesity (Ural et al. 2018). Obesity problem and markers affecting obesity have been known for many years, and genetic predisposition, obesogenic environment and lifestyle seems to be the main responsible. Today, there is information and advanced health care technologies that can stop this problem, and social studies aiming to eliminate the problem continue at full speed. However, the problem continues to increase. Are we in the wrong place? Are we unable to make the diagnosis correctly, don't we have enough research on the causes of the problem, or is there a deviation in root analysis? Who is responsible for the unavoidable morbidity and mortality? I think we need to find answers to these question today.

SS-90

Discharge preparation and patient education after bariatric surgery

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Depending on individual risk factors, 20–25% of the lost weight is expected to be regained within 10 years. Success is linked to the ability to comply with recommendations on diet, exercise and lifestyle changes.

General Warnings:

- Driving is forbidden for the first 2 weeks,

- Heavy physical exercises and lifting heavy loads should be avoided for one month.

- If flying is necessary within the first month, anti-embolism socks should be used.

- Showers can be taken 24 hours after discharge, however bathing in the tub is not recommended for at least 3 months.

Control Frequency: initial inspection should be carried out monthly in the first year, quarterly in the second year, every 6 months in the third year, and thereafter, annually. Birth Control and Pregnancy: The majority of patients undergoing bariatric surgery are women, and 80% of these are of childbearing age. It is recommended to use an effective birth control method for 18–24 months after surgery. Bariatric surgery in itself is not an indication for cesarean section. Oral and Dental Health: As a result of gastroesophageal reflux, problems may arise from retrograde flow of gastroduodenal content to adjacent organs such as esophagus and/or mouth. The pH of the gastric juice is around 1.2, and it is a potential risk for tooth decay and erosion. Nutrition: Fruit juices, jelly and clear liquid foods should be consumed for the first two weeks, after which low sugar, low calorie pureed foods (apples, yogurt etc.) can be added (600 to 800 calories/day). After 2 months, the patient is able to tolerate a wider range of food. Fluids should be avoided during and for 30 minutes after meals. Exercises: At least 30-45 minutes six times a week is recommended for wellness. Initially, a five minute walking in the morning and evening is recommended, increasing to at least 15 minutes twice a day as tolerance grows. Undergoing Bariatric surgery to achieve weight loss and a healthy body mass index is a very serious decision, which requires lifestyle changes in addition to surgery. The role of the nurse in the bariatric team is of key importance; surgical nurses play an active role in perioperative stage. Bariatric surgery nurses should help the patient to find strategies that will build the confidence needed to ensure their surgical weight loss remains permanent.

SS-91

Postoperative care of bariatric surgery patient

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Obesity is one of the most important health problems in the World. Obesity is now considered a chronic disease. Since the success rates in weight loss and maintenance with diet and drug therapies are low, it has been proved that the most effective treatment of morbid obesity is surgery. Bariatric surgery is a surgical treatment method used to achieve weight loss, to protect weight loss, and to prevent obesity related diseases. Surgical procedures in patients undergoing bariatric surgery require multidimensional care in the postoperative period due to the risk of complications and additional diseases. At the same time, it is very important to maintain lifestyle changes in the postoperative period in order to maintain the success of surgery. It is reported that comprehensive preoperative evaluation is important in determining patients' expectations and motivations and preventing complications. After bariatric surgery operations, it was found that teamwork had a positive effect on patient outcomes and compliance and individualized care within the team. Because of the high rate of complications due to obesity after bariatric surgery, close follow-up and complete evaluation of the patient is important. The patients are followed up in the intensive care unit even if there is no additional disease after surgery. Suitable equipment for obese patients with specially trained healthcare workers is the basis of care for obese patients. Postoperative care nurse should have sufficient knowledge about leakage, hemorrhage, deep vein thrombosis, pulmonary embolism, sepsis, wound infection, respiratory and cardiovascular system monitoring, diabetes and hypertension management, obstructive sleep apnea. As a result, obesity surgery requires a team work that continues after the patient's discharge, which begins at the time of admission to the hospital. Postoperative management of the patient is the most important component of obesity surgery which directly affects the results of surgical treatment. In this study; postoperative nursing care was examined under the headings of pain control, infection control, thromboprophylaxis, postoperative nutrition, postoperative oxygenation and psychosocial support.

SS-92

The most feared complication after SG is leakage

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This study shows that if the patients follow-up performed well after leakage occurs, deaths will be reduced considerably. SG was performed on patients 39 years old patients,who had no comorbities and BMI was 41 in July 2015. The patient was admitted to the clinic for diarrhea 10 days after discharge. Leakage was detected and stent was implanted on the same day. The next day, second stent was inserted because the leakage continued. Patient was operated on for 11 days because leakage continued. Iatrogenic gastric perforation was seen during the second stent implantation. Primer repair and bariatric stent was inserted. As the leakage continued,stent was removed for the fourth time and a new stent was placed. Nutritional jejunostomy was opened and patient was taken to intensive care unit. When the leak persisted, he was taken to fifth surgery with the help of gastroenterologist. The stent was replaced again. Leakage was observed from nutritional jejunostomy and jejunostomy was closed. Day 22: the pa-

tient underwent trecoostomy and the abdomen was cleared. Open abdomen was performed and the stent was removed. Re-feeding jejunostomy was opened. Day 40: the patient's general condition deteriorated and he was operated. Leakage was observed from jejunostomy. Nutrition jejunostomy was closed. Day 44: leakage started from stomach. Total gastrectomy was performed. feeding jejunostomy reopened. Day 50: salivary fistula from the lower end of the esophagus. Day 62: The patient was taken to the service. Saliva was aspirated from terecostomy under 24-hour nurse supervision. Nutritional jejunostomycidene diet was arranged under. Daily salivary fistula location and abdominal incision line dressing, the patient was discharged on 93rd day of postop in October 2015. Until May 2016, he was hospitalized and treated 12 times at intervals. The patient underwent esophagojejunostomy in the 10th postoperative month and drank water orally 10 months later. In the postoperative 2nd year, hernia was repaired as the 18th operation due to hernia. This patient continues to live his life normally thanks to doctors from all branches of obesity, especially infection doctor.

Key words: Leakage, nutritional jejunostomy, stent.

SS-93

Postbariatric breast, arm and thigh contouring

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Introduction: Breast deformities in postbariatric patients are differ from the normal population and also challenging. Hypertrophic breasts are quite rare; usually mitotic, deflated and flattened breasts with inelastic covering tissue present. Main problems need to be corrected are ptosis and volume loss together. Pitosis can be minor or severe; this will change the type of the mastopexy procedure. If the pitosis is minor (<2 cm) periareolar mastopexy, vertical or inverted T techniques with several pedicles can be used. If the pitosis is severe; periareolar mastopexy is not recommended; we usually prefer to use inverted T excision pattern with central pedicle. Central pedicle or saptum based mastopexy techniques are superior for shaping, protecting nipple areolar complex blood supply, protecting nipple sensitivity and breast glands. We can combine easily with submuscular plane breast implants. We use round implants with different projection according to patients expectations. If the breast volume is enough central pedicled mastopexy is a good option for breast shaping. We usually combine other procedures like J torsoplasty, arm lift to breast contouring procedures. We use drains for 1–2 days. Dressings are not rigid, we use steril skin strips with gauze dressing and change them in the first week. A shaping bra is worn for 1 month. We give massages in the 1st week when we use implants.

Material and Methods: Brachioplasty or arm lift after massive weight loss is frequently requested for improvement of the function and appearance of arms. Skin excess and pitosis are the basic problems. Brachioplasty can be individually performed or usually combined with other procedures like breast, abdomen and lower body contouring. We usually combine arm lift with J torsoplasty and bresat contouring together to achieve total upper body lift in one session. We usually perform extended arm lift sometimes with forearm lift. We use drains for 2–7 days and compression garments for 1 month. We use steril skin strips with gauze dressing and we first change the dressing in the postoperative 1st week. Usual complications are hematomas, lymphedema and skin sensitivity disorders.

Conclusion: Massive weight loss usually affects medial thigh; causes inelastic skin, proximal fat deposits, sagging and pitosis. The procedure always a combination of liposuction and skin excision with lifting of the medial thigh region. We use T incision which extends horizontal inguinal crease vertically down to medial knee and sometimes medial crural region. We use drains for 2–7 days; pressure garments for 1 month after the operation. Postoperative complications are delayed wound healing and wound dehissance, skin or fat necrosis, serums, hematoma and lymphodema.

Key words: Post bariatric, body, conturing, breast, sigh.

PP-01

Is it necessary to suture the stapler line during Laparoscopic Sleeve Gastrectomy in routine use?

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Introduction: The laparoscopic sleeve gastrectomy technique is commonly used in the treatment of morbid obesity, and it is well known that technical details, such as the amount of antrum left, the diameter of the gastric tube formed, the distance of the stapler line to the hiatus in the cardia, the type of stapler, and suturing of the stapler line, are associated with early and late postoperative results. In these applications, it was aimed to present the preferred surgical technical details.

Material and Methods: After placing the first green-tipped stapler cartridge in the antrum 3 cm proximal to the pylorus, calibration was performed with a 36 Fr catheter, and after the second green-tipped stapler cartridge was used, the blue cartridges were continued on a straight line close to the tube, and the resection was completed by leaving a distance of ~ 1 cm on the fundus cardia junction.By means of the cartridges which can be closed in 3 lines at different heights, effective hemostasis and secure tissue closure were achieved, and the stapler line was left without suturing following the leakage test with blue dye.

Conclusion: There are surgical teams who perform routine suture applications with the expectation of contributing to hemostasis and strengthening the stapler line. However, longitudinal suturing of the stapler line may also include potential drawbacks such as the possibility of negatively affecting the tissue microcirculation and changing the diameter of the narrow tube formed. In clinical applications, we do not use routine suturing. We monitor potential risk areas such as cartridge exchange points and proximal cardiac region and support them with clips when necessary. We support that the use of a routine additional suture is not necessary by providing both hemostasis and tissue closure security along with the use of appropriate new generation stapler and cartridge selection.

Key words: Suture, staple line, obesity treatment,morbid obesity, suture applications.

PP-02

Laparoscopic cholesterectomy in cirrhotic patients with gallbladder disease

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Material and Methods: Our clinic performed 1680 laparoscopic cholecystectomy during 2010–2017. Among them, viral hepatitis B and C were detected in 58 patients (3.45%). Of these 22 were viral hepatitis B (37.9%), 29-viral hepatitis C (50%) and in 6 (12%) viruses B and C have an overall picture. According to urgent instructions, 25 (43.1%) planned operations were completed 33 (56.9%). The diagnosis of cirrhosis was made in 34 patients with intraoperative detection. During the operation, patients with prior consent received an infected biopsy in the liver in 26 patients.

Results and discussion: Of 58 patients with laparoscopic cholecystectomy, 3 received a transition to an open technique (5.2%). The operating time of the medium was 83±8.6 min. Intraoperative bleeding (>100 ml) was recorded in 5 patients, of which 3 changes in the liver were assessed as cirrhosis. In the postoperative period, 2 patients had a leakage of ascite fluid from the drainage tube. There were 2 patients with mild hepatic insufficiency, paraumblyc wound hematoma 1 and 2 patients with seroma. There were no fatal cases; and patients had an average of 2.0±0.9 on the day of hospitalization. Total. In our opinion, even patients with chronic liver disease need to undergo surgical treatment, even with symptom-free cholesterolithiasis. This allows, on the one hand, it allows the hepatitis virus carriers to obtain a visual image of the liver and to obtain a safe biopsy. On the other hand, the patient is insured against fever surgery, which can be performed in the conditions of chronic liver disease, progressing in the future. Laparoscopic cholecystectomy in such patients, along with other positive aspects of this operation, allows for a complete visual examination of the liver and biopsy on its memory.

Key words: Laparoscopic cholesterectomy, cirrhosis, hepatitis B, hepatitis C.

PP-03

Histopathological examination of operation materials in patients undergoing Sleeve Gastrectomy due to obesity, results of a university hospital

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Introduction: Obesity means that body fat mass exceeds nor-

mal values. Obesity is one of the important health problems of recently in terms of its frequency and its consequences. In controlling obesity, bariatric surgical methods are frequently used today. Sleeve gastrectomy is one of the most commonly used bariatric surgery methods. In this study, pathology specimens of patients who underwent laparoscopic sleeve gastrectomy were examined.

Methods: The records of 78 patients who were operated between January 2016 and May 2019 in the general surgery clinic of Osmangazi University in Eskişehir were reviewed and histopathological features of the operation materials were retrospectively analyzed.

Results: Among the patients included in the study, 80.7% were female and 19.3% were male. The mean age of the patients was 38.93±11.36 years. The mean body mass index was 45.45 kg/m^2. The most common pathological finding was gastritis in 71 patients (91%). In 47 patients (60.2%), gastritis activity was mild and in 31 patients (39.7%) moderate and severe. The presence of Helicobacter pylori was shown in 33 cases (42.3%). Neuroendocrine cell hyperplasia was detected in 3 cases (3.8%).

Conclusion: In conclusion, it is important to follow up gastrectomy specimens of obesity patients. When deciding on sleeve gastrectomy, it should be remembered that we may encounter many cases of gastritis. In the preoperative period, the presence of gastritis and the presence of helicobacter pylori can be investigated by upper gastrointestinal endoscopic evaluation. Helicobacter pylori positive patients can be operated after eradication. In addition, the results of post-operative pathology should be carefully examined and appropriate treatment should be arranged in order to investigate the presence of malignancy especially in elderly patients.

Key words: Obesity, sleeve gastrectomy, gastritis, histopathological evaluation.

PP-04

A patient with Genetic Long QT Syndrome, one of the causes of sudden death at a young age

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A 39-year-old female patient was admitted to our clinic with complaints of obesity because she had problems in weight gain and protection despite various diet attempts for the past year. The patient has undergone breast mass and deviation surgery and is diagnosed with diabetes. Glifix 45 mg was used. The patient was investigated for fainting complaints in the preop period, but no results were obtained. After the preoperative interview, necessary tests were performed for the preparation of the operation and the patient was found to be suitable for the operation. A female patient with a body mass index of 37.3 kg/m^2 underwent sleeve gastrectomy on 18 August 2017. Weight loss was recorded as 3.1 kg in the first postoperative week. In the gradual nutrition program planned by the dietitian of the patient, the target amount of protein to be taken daily was planned as 1–1.2 grams/kg protein per kg supported by enteral products. The patient applied to another center for fainting 3 times within 1 month after discharge. Hypoglycemia was considered as the cause of fainting. The patient was admitted to our hospital for examination, routine examinations, fasting and postprandial blood glucose monitoring was performed. Blood pressure and rhythm holter were also inserted. Neurology consultation was requested because of syncope in the evening. The rhythm holter result of the patient was evaluated by the cardiologist. After the Torsades de pointes rhythm was determined during the fainting hours, patients was sent to an electro physiology study center for implantation of an implantable cardiverter defibrillator (ICD). ICD was inserted. ICD shock was detected during follow-up. The controls are still in progress. It is recommended that obese individuals should be consulted for cardiology before bariatric surgery.

Key words: QT Syndrome, implantable cardiverter defibrillator, mortality.

PP-05

Incisional hernia repair and abdominoplasty after Laparoscopic Sleeve Gastrectomy

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Introduction: Laparoscopic sleeve gastrectomy (LSG) is one of the most commonly performed effective bariatric surgical procedures. LSG is associated with specific complications: incisional herniation is one of the these. Laparoscopic approach advices many advantages to the patient in terms of minimal wound complications, postoperative pain and length of hospital stay. Incisional hernias occur at a higher incidence after conventional sleeve gastrectomy about 20% percentage rate. However LSG has a lower rate of incisional hernias. Our goal is to present both an incisional hernia repair and abdominoplasty surgery after sleeve gastrectomy.

Material and Methods: A 41-year-old women had undergone a laparoscopic sleeve gastrectomy surgery 18 months before presentation at our department. Hernia and abdominoplasty indications occurred in our patient with a body mass index of 45.3 after heavy lifting within 15 months of hernia repair surgery. We have applied both abdominoplasty and incisional

hernia repair in the same operation period. The patient was started on a clear liquid diet 1 days after the procedure, also patient was discharged at postapplicative second days.

Conclusion: Abdominoplasty and incisional hernias are safely and preferentially repaired at the time of removal of abdominal panniculus after massive weight lost sustained from laparoscopic sleeve gastrectomy surgery. We present our approach to hernia repair and abdominoplasty in our patient with acceptable, minimal morbidity results. As a result of that we think double procedure like as hernia and abdominal panniculus prolapse can applicable in the same operation.

Key words: Sleeve, gastrectomy, laparoscopic.

PP-06

Stapler line leakage in Laparoscopic Sleeve Gastrectomy: Can tissel attachment to stapler line by preserving fatty tissue at his angle reduce the risk of esophagogastric junction leakage?

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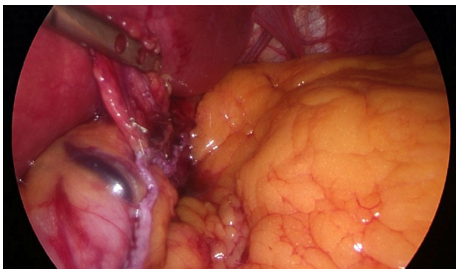
Introduction: Laparoscopic Sleeve Gastrectomy (LSG), which was first described in 1999, is currently the most widely used surgical method in the surgical treatment of morbidly obese patients. Complications that most affect morbidity and mortality after LSG and which surgeons do not want to encounter are stapler line leaks.

Material and Methods: A total of 476 patients who underwent LSG in our clinic between 2012–2019 were retrospectively reviewed from the automation system of our hospital. Patients with leakage from the stapler line were detected. The results of the stapler line closure method with fatty tissue at the angle of His, used to prevent leakage of the stapler line were investigated.

Results: There were 477 patients who underwent LSG by a single surgeon in our clinic. The mean age of the patients was 37 (18–64) years. 134 (28%) of these patients were male and 342 (72%) were female. The leakage from the stapler line was seen in only 1 (0.2%) cases (this leak was corpus level and treated with a covered stent). After the 80th case, the fundus was preserved in the form of fat pad cushion plyle and the stapler line was attached to the stapler line with the help of tissel (Figure 1). No esophagogastric junction leakage has occurred in any of our patients.

Conclusions: Despite advances in stapler technology, stapler line leakage remains the most feared complication after LSG. We preserve the fat pad in esophagogastric junction and adhere to the stapler line with the help of tissel in the final stage of the operation - at least in preventing micro-leaks.

Key words: Sleeve Gastrectomy, fatty tissue, fundus, leakage.



Fat pad cushion plyle and the stapler line.

PP-07

Gastric tube should not be fixed with a single suture to reduce the risk of gastric stenosis due to axial rotation of the stomach

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Introduction: Nowadays, the most effective treatment for morbid obesity is bariatric surgery. Laparoscopic sleeve gastrectomy plays an important role in bariatric surgery. After laparoscopic sleeve gastrectomy, complications such as bleeding, stapler line leakage and stenosis are seen. Gastric stenosis may result from fibrosis after surgery or axial rotation of the remnant gastric tissue. We aimed to share the etiology and treatment of gastric stenosis due to axial rotation of the stomach in patients undergoing laparoscopic sleeve gastrectomy.

Material and Methods: The data of 477 patients who underwent laparoscopic sleeve gastrectomy between October 2012 and July 2019 were retrospectively reviewed.

Results: Between October 2012 and July 2019, 3 (0.62%) of 477 patients who underwent laparoscopic sleeve gastrectomy had gastric stenosis in the late postoperative period due to axial rotation of the stomach. Two patients were treated with Roux and Y Gastric bypass and one patient with minigastric bypass. When the data were examined, it was seen that gastric tube was fixed to the omentum with single suture in 172 (36.05%) of 477 patients who underwent laparoscopic sleeve gastrectomy, and 3 patients who developed stenosis due to gastric rotation were included in this group.

Conclusion: Although gastric stenosis after laparoscopic sleeve gastrectomy is a rare complication, we would like to emphasize that the gastric tube should not be fixed with a single suture to reduce the risk of gastric stenosis due to rotation of the stomach.

Key words: Laparoscopic sleeve gastrectomy, axial rotation of the remnant gastric tissue, gastric stenosis.

Axial rotation of the remnant gastric tissue and neofundus due to stenosis.

Conclusion: Nutritional neuropathy after LSG should be considered in the differential diagnosis of neurological symptomps. Thus monitoring and supporting serum levels of micronutrients postoperatively will help to prevent them.

Key words: Bariatric surgery, neuropathy, sleeve gastrectomy.

Analysis of patients

sex	age	preop BMI	BMI before nutritional treatment	additional disease	diagnosis	therapy
male	22	62	50	no	nutritional neuropathy	micronutrient treatment+ neuropathic pain treatment+ physiotheraphy
female	22	47	38	no	nutritional neuropathy+ axonal sensorimotor distal polyneuropathy	micronutrient treatment+ neuropathic pain treatment+ physiotheraphy+ IVIG
male	37	45	32	no	nutritional neuropathy	micronutrient treatment+ neuropathic pain treatment+ physiotheraphy
female	35	46	36	no	nutritional neuropathy+ axonal sensorimotor distal polyneuropathy?	micronutrient treatment+ neuropathic pain treatment+ physiotheraphy

PP-08

A rare complication following bariatric surgery; neuropathy

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Introduction: Nowadays, bariatric surgery is the most effective treatment for morbid obesity. However, there are some postoperative complications and neuropathy is one of the rare.

Material and Methods: The data of 475 patients who underwent laparoscopic sleeve gastrectomy (LSG) between October 2012 and July 2019 were retrospectively reviewed. Neuropathy was detected in four patients (0.84%).

Results: The mean age of four patients (2 male and 2 female) was 29 years. None of them had history of chronic disease. Preoperative mean body mass index (BMI) values were measured as 50 kg/m². Complaints of the patients started within 3 months after the operation. We did not give any multivitamin supplementation before the operation. While slowed nerve conduction velocity and distal axonal sensorimotor polyneuropathy were detected in two patients, the other two patients had severe neuropatic complaints without pathological findings except decreased vibratory sensation and deep tendon reflexes in physical examination. In our clinic, dietician suggestions were given about nutrition after bariatric surgery, but those patients did not care the suggestions. In addition, Folate, vitamin D, vitamin B12 and albumin levels were low in all patients. Our preliminary diagnosis was nutritional neuropathy. All patients received micronutrient therapy (multivitamin, calcium, zinc), neuropathic pain therapy and physical therapy, while one patient received intravenous immunoglobulin. All patients had nearly complete clinical response after 2 months of treatment.

PP-09

Effect of Sleeve Gastrectomy on type 2 diabetes mellitus

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Introduction: In this study, it was aimed to evaluate the effect of laparoscopic sleeve gastrectomy (LSG) in patients with type 2 diabetes mellitus (type 2DM).

Material and Methods: The results of 11 type 2 DM patients who underwent LSG and were followed up for at least one year were retrospectively evaluated.

Results: The average age of the patients was 39 (in the 25–61 age range), and the female/male ratio was 3/8. 1 patient (9.9%) was taking insulin. The preoperative mean ± standard deviation body mass indices, fasting blood glucose, and hemoglobin A1c levels were 46.7±5.5 kg/m², 132±23.4 mg/dL, and 7.1±1.5%, respectively. After surgery, these values were found to be 37.9±3.3 kg/m², 125±39.3 mg/dL, and 6.1±1.3%, respectively. According to the guideline of the American Diabetes Association (2015), after LSG operation in type 2 DM, the complete remission rate was (14.3%), the recovery rate was (19.8%), and the non-remission rate was (65.9%).

Conclusion: LSG, which is regarded as a restrictive operation, provides diabetes control in 34.1% of patients with type 2 DM.

Key words: Type 2 diabetes mellitus, metabolic surgery, type 2 diabetes mellitus treatment, sleeve gastrectomy, diabetes treatment.

PP-10

Management of the leakage occurring after Sleeve Gastrectomy dperation

Fatih Çiftci

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The aim of this study was to present our experience in 1 case regarding the detection and management of leakage conditions with high mortality after sleeve gastrectomy. 81 sleeve gastrectomy operations were performed by the same physician between the years 2017 and 2019, and leakage was encountered in one of them. In this study, we focused on the management of 1 leakage case. After physical examination of the patients for the detection of leakage, laboratory (hemogram, CRP) results were evaluated, and oral-IV contrast-enhanced abdominal CT was taken. In the patient who was found to have leakage as a result of these tests, oral intake was stopped, and an endoscopic stent was placed. Enteral nutrition was then initiated in the patient. The periodic hemogram and CRP follow-up of the patient with clinical improvement were performed, and control oral-IV contrast CT was taken. The patient's drain was removed by gradually withdrawing in a controlled manner, and the leakage improvement aimed in the patient was achieved. Our experience and main emphasis in these cases are that the intervention should be performed without delay and should be non-invasive, and enteral nutrition should be initiated as early as possible.

Key words: Obesity, sleeve gastrectomy, complications, management.

PP-11

The effect of resected gastric volume on excessive weight loss in patients undergone bariatric surgery

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Introduction: To identify the effect of the resected gastric volume (RcGV) on excessive weight loss (EWL) among patients underwent laparoscopic sleeve gastrectomy (LSG).

Material and Methods: The demographics,operative details, postoperative morbidity, mortality and percentages of EWL in the postoperative 1, 3, and 6 months of the patients who underwent LSG between May 2016 and May 2018 were analyzed. These patients were divided into three groups regarding the resected gastric volume (RcGV): Group 1 (n=35): RcGV < 1400 cc; Group 2 (n=34): 1400 < RcGV < 1700 cc; Group (n=35): RcGV ≥1700 cc. The resected gastric volume (RcGV) measurement was achieved by filling the specimen with tap water after the specimen was taken out from the patient. Excessive weight loss (EWL) was calculated with a practical formula including the patients' current weights at the beggining and at postoperative sixth month,and ideal weights.

Results: A total of 104 patients were included in the study. Demographic features were similar between three groups. The female to male ratio was 77/27, whereas the mean age was 38±3,and the mean BMI is 44±3. The weight losses in groups at sixth month were 34.03 kg, 35.4 kg, and 39.81 kg, respectively. The mean excessive weight loss were similar in Group 1 ($p>0.05$) and 2 ($p>0.05$), whereas the patients in group 3 had significantly higher EWL than group 1 ($p<0.05$) and group 2 ($p<0.05$) at 6. month postoperatively. No major complications such as hemorrhage, staple line leakage, and abscess that required any interventional management or a second operation were observed in all groups.

Conclusion: Enlargement of the resected gastric volume over 1700 cc resulted in significantly accelerated reach to optimal EWL% with similar postoperative outcomes.

Key words: Antral resection, excess weight loss, gastric volume, laparoscopic sleeve gastrectomy, obesity.

PP-12

The effect of antral resection margin on excessive weight loss in laparoscopic Sleeve Gastrectomy

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Introduction: To identify the effect of the extent of antral resection on excessive weight loss (EWL) among patients who underwent laparoscopic sleeve gastrectomy (LSG).

Material and Methods: The demographical data, operative details, postoperative morbidity, mortality and the percentages of EWL in the postoperative 6. month of the patients who underwent LSG between January 2016 and May 2018 were analyzed. These patients were divided into three groups regarding the antral resection margin (ARM): Group 1 (n=50): ARM ≤3 cm; Group 2 (n=52): 3 <ARM <6 cm; Group 3 (n=48): ARM ≥6 cm. The antral resection margin was measured by using a ruler, whereas the residual gastric volume (RdGV) measurement and leak test were performed by filling methylene blue through the bougie into the remnant stomach.

Results: A total of 150 patients were included in the study, in which, demographic features were similar between three groups. The female to male ratio was 106/44, whereas the mean age was 37.8±3, and the mean BMI was 45.2±3. The mean

RdGV of groups were as follows: 29.3±5 (p>0.05), 32.2±7.2 (p>0.05), and 36.6±11 (p>0.05). The mean weight losses of patients in groups were 40.02 (p>0.05), 36.1 (p>0.05), and 35.2 (p>0.05) respectively, which shows that the patients in Group 1 had significantly higher EWL% than Group 3 at 6 month postoperatively. No major complications such as hemorrhage, staple line leakage, and abscess that required any interventional management were observed in all groups.

Conclusion: Enlargement on the antral resection margin (>6 cm) resulted in decelerated reach to optimal EWL% with similar postoperative outcomes.

Key words: Antral resection, excessive weight loss, laparoscopic sleeve gastrectomy, obesity.

PP-13

Is it necessary to use antibiotics after bariatric surgery?

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Introduction: Antibiotic use is a common practice for infection prophylaxis after bariatric surgery but its effectiveness is discussed due to the lack of frequent postoperative infections. Unnecessary antibiotic use causes allergic reactions, toxicity, pathogen resistance and additional costs. This study aims to investigate the effectiveness of antibiotic use after bariatric surgery.

Material and Methods: Between May-July 2019, 49 patients who underwent sleeve gastrectomy were followed up. All patients received intravenous 1-generation cefolosporin-ornidazole 2 antibiotics for 3 days postoperatively. C-reactive protein (CRP) mg/dl values of the patients were evaluated daily until the day of discharge and antibiotherapy was started based on CRP on the 3rd day. Patients were divided into 3 groups. Antibiotic treatment was not administered to patients with CRP values less than 3 mg/dl on the day of discharge (group 1). Single antibiotic treatment (2nd generation cephalosporin mg (2x1)) was administered to patients with CRP between 3-5 mg/dl (group 2). Bilateral antibiotic therapy (CEC 1000 mg (2x1)+nidazole 500 mg (2x1)) was administered to patients with CRP levels above 5 mg/dl (group 3). Afterwards, CRP levels of the patients in 3 groups were reevaluated and compared with CRP levels on the day of discharge. SPSS 22 t-test and ANOVA TUKEY HSD were applied.

Results: A significant difference was found between the crp rate when discharged and the crp rate when medical dressing. There was a significant difference (p=0.02, p<0.05) between dual use and antibiotic use, whereas no significant difference was observed in single use (p=0.033, p>0.05).

Conclusion: According to the results of this study, antibiotic treatment should not be applied to patients whose CRP level was less than 5 mg/dl when they were discharged, and bilateral antibiotic treatment (CEC 1000 mg (2x1)+Biteral 500 mg (2x1)) for patients over 5 mg/dl.

Key words: Antibiotics, bilateral antibiotic therapy, Sleeve Gastrectomy.

Paired simple test

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	CRP rate on discharge - CRP rate on medical dressing	2,83653	3,11273	,44468	1,94245	3,73061	6,379	48	,000

PP-14

Euglycaemic diabetic ketoacidosis after roux-en y gastric bypass: A case report

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Introduction: Blood glucose regulation is important in patients with morbid obesity and type-2 diabetes mellitus (DM) after bariatric surgery (BS). In these patients,euglyceamic diabetic ketoasidosis (EDKA), which is a complication of DM, may be an important cause of emergency admission. EDKA may occur due to low carbohydrate feeding postoperatively, interruption of insulin treatment, and some oral-antidiabetics. In the literature, some authors support the increase of EDKA in perioperative period with the usage of SGLT-2 inhibitors such as canagliflozin,dapagliflozin,and empagliflozin.

Case Report: A 57-year-old male patient was admitted to the hospital for BS due to morbid obesity. He was 135 kgs, 178cms and BMI was determined as 41 kg/m^2. OSAS and DM were present comorbide diseases. The treatment of DM was as biphasic insulin-aspart 100 U/ml 2x20 U, acarbose 300 mg/day and empaglyphlozine 10 mg/day. Preoperative HbA1c revealed 9%. Roux-n-y gastric bypass was performed.The patient was discharged on postoperative 3rd day with no complaints. When discharged, insulin doses were reduced and empagliflozin 10 mg were continued.The patient was admitted to the emergency department with sudden dyspnea and fatigue on the 7th postoperative day. In physical-examination;

tension arteriel: 185/88 mmHg, heart-rate was 123/min and SO_2 was 97%. In laboratory examination; WBC: 32400/L, blood-glucose: 182 mg/dL, CRP: 3.3 mg/dL, creatinine: 2.2 mg/dL, and potasium: 6.7 mEq/L, pathologically. In blood-gas-analysis pH: 6.9, HCO_3: 6 and PCO_2 was 18. In complete urinalysis +++ keton body levels and and +++ elevated urine glucose were detected. No intraabdominal pathology was detected on CT imaging. The patient was diagnosed as soon as EDKA and hydration, bicarbonate infusion and insulin treatment were provided urgently. After 3 days of follow-up, the patient's clinical findings improved. Insulin was re-arranged and the patient was discharged.

Results: EDKA should be considered in the differential diagnosis of patients presenting to emergency department with general condition disorder in the early postoperative period of BS.This should be taken especially into consideration in patients receiving SGLT-2 inhibitors.

Key words: Bariatric surgery, diabetes mellitus, euglycaemic diabetic ketoacidosis.

PP-15

Results of laparoscopic Mini Gastric Bypass in patients with diabetes mellitus type 2

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Introduction: Nowadays 2nd-type diabetes mellitus has become one of the most widespread problem in the world due to the rapid increase of cases, the chronic tendency of the disease and the significant financial, time costs for treatment. The purpose of the research: analysis of the results of mini-gastric bypass (MGB) in patients with 2nd-type diabetes.

Material and Methods: For the period from January 2017 to July 2019, 51 patients were included in this study. There were 37 women and 14 men with type 2 diabetes. The average age was 45.5±10.9 years. From them 9 patients underwent open MGB due to contraindication of lapaparoscopy, in 42 patients we performed laparoscopic MGB. Patients were observed for more than 2 years after surgery. In all patients the analysis of clinical and laboratory data were performed.

Results: The disease duration was 9.6±2.4 years. The average preoperative BMI was 45.3±10.5 kg/m^2. The average glycated hemoglobin was 9.1±2.3%. The average fasting plasma glucose was 15.6±2.7 mmol/L. Test for glucose tolerance (2 hours after taking 75 grams of glucose) - the plasma glucose level was 19.5±4.2 mmol/L. The average C-peptide level was 2.6±1.2 ng/ml. Before surgery, 12 patients received insulin therapy, 39 patients took oral hypoglycemic drugs. The average BMI decreased by 40–70% of the baseline during the first year after surgery and then remained at the same level. The average level of glycated hemoglobin in 95% of cases was less than 6 mmol/l, C-peptide - 1.2 mmol/l. Normalization of fasting plasma glucose levels and a decrease in glucose levels of less than 9 mmol/l with sugar load were noted.

Conclusion: 1. MGB surgery for 2nd-type diabetes is an effective and safe operation. To achieve good results, a more careful selection of patients for surgery is necessary based on BMI, glycated hemoglobin level, c-peptide, fasting glucose level.

Key words: Mini-Gastric Bypass (MGB), metabolic surgery, 2nd-type diabetes mellitus.

PP-16

Gastric remnant necrosis after Mini Gastric Bypass

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Introduction: Laparoscopic sleeve gastrectomy (LSG) and Mini Gastric Bypass (MGB) are surgical methods that widely used in the surgical treatment of morbid obesity. MGB can be used as primary surgery or revision after LSG.

Material and Methods: The patient who was administered LSG by another surgeon at 2013 had a BMI of 53.4 kg/m². After 5 years she was admitted to our hospital as BMI of 56 kg/m² and underwent MGB as a revision surgery. Necrosis of gastric remnant occured after MGB.

Results: Two weeks after MGB, patient presented to the emergency department with complaints of fever, shortness of breath and abdominal pain. The patient was in septic condition and examined rapidly. Abdominal and thoracic CT scans revealed empyema, intraabdominal abscess releated with remnant gastric necrosis. The patient underwent tube thoracostomy drainage and laparotomy immediately. The remnant stomach was resected and intraabdominal abscess was drained through the operation. Patient was followed in the intensive care unit for 30 days. The patient had decreased muscle strength before discharge and we consulted the patient to start physiotherapy. Also decubitus ulcers had developed and for these complication we planned debridement and repeated vac applications. Approximately ten months later after MGB, the patient presented with abdominal pain and during the investigations herniation of transverse colon was detected due to diaphragmatic defect. Laparotomy was

performed again and during the surgery rupture of gastrojejunostomy line was occurred due to marginal ulcer. Gastrojejunostomy + roux-y anastomosis were performed and diaphragmatic hernia was repaired by using mesh. One week later, the patient was discharged.

Conclusion: Gastric remnant necrosis after mini gastric bypass is a rare but severe complication that should be kept in mind. Correct management is important to avoid the mortality.

Key words: Bariatric surgery, mini gastric bypass, gastric remnant necrosis.

PP-17

The Laparoscopic Mini-Gastric Bypass for morbid obesity: A single institutional review of the first 200 concecutive cases, mid-term results

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Introduction: During the past 15 years, a growing number of authors from around the world have continued to report excellent short- and long-term results with Mini-Gastric Bypass (MGB). The major end points of the study were definitions of both MGB safety and efficacy in the mid- term.

Material and Methods: A retrospective analysis of a prospectively maintained database was performed and included 200 consecutive patients after laparoscopic MGB performed from 2013 to 2018 in a single center. The mean age was 39.4, 74 men (37%) and 126 women (63%) and their preoperative body mass index was 48±4.58 kg/m. Type 2 diabetes mellitus (T2DM) affected 76 (37.5%) of the 200 patients, whereas 59 (29.5%) presented with hypertension. The MGB consists of a long gastric conduit with a anastomosis to an anti-colic loop of jejunum 150–200 cm distal to the ligament of Trietz.

Results: The perioperative morbidity rate was 5.5% (11/200). The mean hospital length of stay was 4.0±1.8 days. Late complications have affected 12 (6%) of the 188 patients in follow up. Bile reflux gastritis was symptomatic, with endoscopic findings reported for 6 (0.31%) and 4 patients required revision surgery. At 40 months, the percentage of excess weight loss was 78±5.1%, the T2DM remission was 84.4%, and the resolution of hypertension was 87.5%.

Conclusion: This study, together with many other mid-term similar studies from around the world demonstrated the MGB to be a short, simple, low-risk, effective, and durable bariatric procedure.

Key words: Bariatric, surgery, laparoscopic, mini, gastric, bypass.

Table 1: Demographic features, technique and co-morbidities

Character	No(%) / (mean)	Standard deviation
Primary procedures	188 (94%)	
Revisional after LSG&GP	12 (0,6%)	
Age	21-65 (39.4) years	11.23
Women/Men	126/74 (63, 37%)	
BMI Kg/m2	38-58 (48)	7.37
BMI>50	64 (32%) Kgs/m2	
Weight [kilograms]	88-196 (123.4) Kgs	23.63
Diabetes	75 (37.5%)	
End-side/side-side GJ anastomosis	156 (77%)/(44/23%)	
Biliopancreatic limb length	150/200 82 (41%)/118 (59%)	
Excess weight loss	53–87% (72)	10.49
Length of stay	2–15 days (2.18)	

PP-18

A Comparative study of weight loss and complications after laparoscopic Minigastric Bypass (MGB/One Anastomosis) versus Roux-en-Y gastric bypass (RYGB)

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Introduction: Most Bariatric units perform Laparoscopic Roux-en-Y Gastric Bypass (LRYGB) and Minigastric Bypass (LMGB/One Anastomosis) with satisfactory results and low complication profile.This study compares LRYGB and LMGB procedures in a large volume single bariatric unit.

Material and Methods: Data was collected and analysed retrospectively of all LRYGB and LMGB performed from Jan 2013 to Sep 2017. The follow up period was for 2 years. Patients who were lost on follow up or had prior bariatric procedure were excluded. Excess Weight Loss (EWL %), Total Weight Loss (TWL %) and post-operative complications were analysed in both groups.

Results: A total of 400 patients were operated, including 188 LMGB and 192 patients LRYGB, respectively. 28 patients were excluded. At 2 years, mean (TWL %) and mean (EWL %) were 32% (12.7–61%) and 70.1% (16–93.8%) respectively for LRYGB group while for OAGB group it was 36.4% (22.4–69.8%) and 74.8% (24.1–122.9%) respectively ($p<0.0001$) and ($p=0.0119$). Gastroesophageal reflux symptoms were higher in LMGB group 12 (8.4%), with 7 patients needing further surgery, vs 4 (2.8%) in LRYGB, ($p=0.0003$). No difference in incidence of marginal ulcers between LRYGB and LMGB 2.7% vs 5% ($p=0.1115$) was found. Internal herniae were seen only in LMGB, 3 patients (2.1%). Re-operation rate 12 (8.4%) in LRYGB vs 8 (6.1%) in LMGB was not statistically significant ($p=0.1824$).

Conclusion: LMGB had superior short-term weight loss and low complications profile. Both procedures demonstrated no

difference. in either marginal ulcers or re-operation rate. Reflux symptoms have remained a major side effect of LMGB.

Key words: Laparoscopic, OAGB, MGB, RYGB, Bariatric, surgery.

PP-19

Comparative evaluation of the effectiveness of Ileal Interposition and transit bipartition in patients with diabetic angiopathy without obesity

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The results of the examination and treatment of 85 patients with ulcerative necrotic lesions of the lower extremities who underwent various metabolic surgical procedures were analyzed. The average age ranged from 46±12.5 years. 58 (68.2%) patients underwent «Ileal Interposition» operations, and 27 (31.8%) patients had «transit bipartition». The glycemic efficiency of the performed operations showed the achievement of the results of remission as the most frequent options for completing the treatment of patients. In the postoperative period, 78 (92%) patients achieved complete control of the blood glucose level. Only 4 patients (4.7%) used only 1, and 2.3% - 2 ant hyperglycemic agents to ensure control of blood glucose levels. One patient required the use of a daily single dose of insulin. In the long-term postoperative periods, the regression of the necrotizing process was characterized by positive dynamics in the form of a decrease of manifestation process degree or completes scarring of the latter. It should be noted that as early as 10 days after the operation, necrotic processes of the 3rd degree we did not meet. On the 30th day after «ileal interposition» was performed, 68.5% of patients were marked against the background of remission of diabetes mellitus of the ulcer-necrotic process. After performing the «transit bipartition» operation, this indicator was slightly lower and amounted to 55.3%. However, nevertheless, as in the above case, patients with grade 3 of the ulcerative-necrotic process were already eliminated on the 10th day of the postoperative period. According to the mechanism of action, it is close to the effects of drugs of groups of incretin-mimetics, including glucogon-like hormone-1 receptor agonists and dipeptidyl peptidase inhibitors. This option in milder forms of ulcerative-necrotic complications diabetic foot syndrome also contributes to the achievement of the desired results.

Key words: Type 2 diabetes mellitus, diabetic angioneuropathy, Ileal Interposition, transit bipartition.

PP-20

Evaluation of C-peptide value in the patient with T2DM

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A 63-year-old male patient with diabetes underwent surgery for coronary bypass in 2008 and colon cancer on December 18, 2017 (stage 2). Chemotherapy was started postoperatively.Transit bipartition operation was performed in September 2018 with a body mass index of 31 kg/m^2. Since the open wound in the abdominal region did not heal in 1 postoperative year, it was thought that the delay in wound healing may be due to diabetes. Thereafter, the preoperative C-peptide value was 1.37 ng/mL and Hba1c was 12%. Preoperative FBS: 234 mg/dl and hba1c value was 11.35% while post-op 4. On the first day of treatment, FBS was 189 mg/dl. After the surgery, it was determined by the surgeon that the flix was not caused by diabetes and that it came from a hole at bowel that was too small to be seen with the eye. Since the fasting and postprandial glucose values were normal in the postoperative hospitalization period, insulin was not recommended to the patient within 1 month. However, the patient's complaints continued during this period. The patient had difficulty adapting to the diet and experienced food rejection with nausea and vomiting. This process was accompanied by weight loss, weakness and fatigue. C-peptide value was 2.1 ng/mL postoperative 3 months and HbA1c was 8% whereas at 10 months postoperatively, C-peptide was 0.6 ng/dl and HbA1c was 9%. The patient was shot 35 units of insulin in the morning and evening before the surgery, and 15 units of insulin were shot in the morning and evening from the 9th postoperative month. The average glucose value was 150–160 mg/dl. In conclusion, the patient's insulin dependence was observed as a result of the decrease of C-peptide in the 10th month although the pre-operative C-peptide was normal. Is C-peptide a sufficient criterion in diabetes surgery?

Key words: C-Peptide, T2DM, colon cancer.

PP-21

The efficacy of intragastric balloon volume

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Introduction: Obesity is an epidemic disease worldwide. Intragastric balloon (IGB) is one of the treatments of obesity.

This treatment is reliable and shows remarkable efficacy in weight loss. IGB efficacy may be affected by balloon volume. The purpose of this study is to determine the efficacy of IGB in weight loss in obese patients depending on the different balloon volume.

Material and Methods: 64 patients underwent IGB placement between January 2016 and June 2019. Patients were divided into two groups. Body mass index was between 30 and 40 for the both group. For the first group, IGB was filled 400–450 mL, whereas IGB was filled 550–700 ml for the second group. 6 months later IGB was removed. Collected demographic data such as age, gender, complication rate and weight loss were collected prospectively and evaluated retrospectively.

Results: For the first group (32 patient), the percentage of excess weight loss (%EWL) at 1 month was 24.10 and %EWL was 47.58% for the following 6 months. For the second group (32 patients), %EWL at 1 month was 31.56% whereas %EWL at 6 months was 67.30%. In both groups, 2 IGB was removed on the first day after placement according to patients request.

Conclusion: When IGB is filled with higher volume, IGB treatment of obesity is much more effective for weight loss

Key words: Obesity, Intragastric balloon volume, efficacy, excess weight loss.

PP-22

Does Helicobacter pylori infection affect the complication rate after Laparoscopic Sleeve Gastrectomy?

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Introduction: Helicobacter pylori (HP) infection is more commonly observed in Asia at a rate between 45–55%, and few articles emphasize the importance of this infection after bariatric operations.

Material and Methods: In this study, it was aimed to represent the prevalence of HP infection in Turkish obesity population and its effects on early postoperative complications, especially hemorrhage and leakage.

Results: Between January 2014 and May 2015, laparoscopic sleeve gastrectomy was performed on 373 patients (107 males, 266 females). The mean age of the patients was 38 years, and the mean BMI was 42.67 kg/m^2. In 79 patients, HP was determined to be positive in histopathological reports. No significant difference was observed in demographic values between HP positive and negative groups. A total of 5 complications were observed: 1 leakage in an HP positive patient, 3 hemorrhages and 1 intraabdominal collection in HP negative patients. There was no significant difference between the groups.

Conclusion: HP does not influence early complications after sleeve gastrectomy. HP screening or eradication policy is not essential for asymptomatic bariatric surgery candidates.

Key words: Helicobacter pylori, sleeve gastrectomy, complication, gastric leakage, obesity, obesity treatment.

PP-23

Morphofunctional assessment of the mucous membrane of the small intestine after transit bipartition in the experiment

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It is known that in the treatment of type 2 diabetes mellitus, bariatric surgeries are becoming increasingly popular, in particular, transit bipartition reduces the level of postoperative side effects with its high effectiveness. Meanwhile, it remains unclear how much the transit bipartition meets the requirements of exposure to the incretin system directly in the intestine itself? The first step in the search for an answer to this question, in our opinion, should be a morphofunctional assessment of the intestinal mucosa. We have conducted experiments on rats of both sexes. The first group consisted of rats that had received a transit bipartition, the second group included rats that were just doing laparotomy and wound closure. The study was conducted in the dynamics. Comparative morphometry of the small intestinal mucosa of rats showed that the length and width of the villi in the experimental group exceed the corresponding control indicators. In the mucous membrane of the small intestine of the experimental group of animals on the tops of the villi, intense hyperplasia of the enterocytes into the intestinal lumen was observed. The average area of the villus enterocyte nuclei decreased by 32.0% ($p \leq 0.05$), and the cryocyte enterocyte nuclei increased by 27.8% ($p \leq 0.05$) compared to the control. In the experimental group, an increase in the number of goblet cells by 50.14% ($p \leq 0.05$) was observed, mainly in the villi, while their average area remained almost unchanged. Thus, as a result of research, changes in the hypertrophic and adaptive nature were detected in the wall of the small intestine of rats after the transit bipartition operation.

Key words: Type 2 diabetes, incretin, transit bipartition, intestinal morphology, morphometry.

PP-24

Relationship between ABO blood groups and obesity

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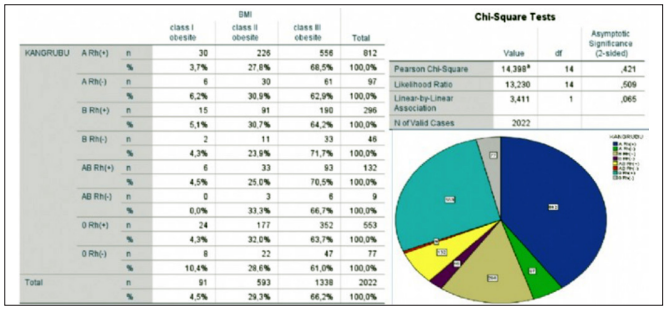
Introduction: To investigate the relationship between body mass index (BMI) and ABO and Rh blood groups in patients undergoing obesity and metabolic surgery.

Material and Methods: The records of 2167 patients who underwent obesity and metabolic surgery in Antalya Lara Anadolu Hospital between January 2016 and January 2019 were evaluated retrospectively. Patients whose BMI <30 and file data were not complete were not included in the study. After the exclusion criteria were applied, the records of 2022 patients were evaluated. According to BMI classification, 30–34.9 kg/m^2 obesity was accepted as class I, 35–39.9 kg/m^2 obesity was class II and ≥40 kg/m^2 obesity was class III.

Results: While 1463 (72.3%) of the patients were female, 559 (27.7%) were male. Of the patients, 91 had class I obesity, 593 had class II obesity, and 1338 had class III obesity. When evaluated according to blood groups, the dominant blood group was ARh (+) (n=812) and the second frequency was 0 Rh (+) (n=553) in the class I, class II and class III obesity group. There was no significant difference between the obese groups in terms of blood group (p=0.421). In the study, obesity was found to be significantly less frequent in Rh (-) patients compared to Rh (+) in all 4 blood groups, and the number of patients with AB Rh (-) blood group (n=9) was the least common among all patients.

Conclusion: While the A and 0 blood groups were significantly higher in obese patients, we thought that there was a relationship between Rh and obesity due to the lower rate of Rh (-) blood groups and this situation strengthens the argument that obesity has genetic basis. In this respect, we believe that prospective studies are needed.

Key words: Obesity, ABO, blood groups.



			BMI class I obesite	BMI class II obesite	BMI class III obesite	Total
KANGRUBU	A Rh(+)	n	30	226	556	812
		%	3,7%	27,8%	68,5%	100,0%
	A Rh(-)	n	6	30	61	97
		%	6,2%	30,9%	62,9%	100,0%
	B Rh(+)	n	15	91	190	296
		%	5,1%	30,7%	64,2%	100,0%
	B Rh(-)	n	2	11	33	46
		%	4,3%	23,9%	71,7%	100,0%
	AB Rh(+)	n	6	33	93	132
		%	4,5%	25,0%	70,5%	100,0%
	AB Rh(-)	n	0	3	6	9
		%	0,0%	33,3%	66,7%	100,0%
	0 Rh(+)	n	24	177	352	553
		%	4,3%	32,0%	63,7%	100,0%
	0 Rh(-)	n	8	22	47	77
		%	10,4%	28,6%	61,0%	100,0%
Total		n	91	593	1338	2022
		%	4,5%	29,3%	66,2%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14,398[a]	14	,421
Likelihood Ratio	13,230	14	,509
Linear-by-Linear Association	3,411	1	,065
N of Valid Cases	2022		

PP-25

Determination of the effect of bariatric surgery on clinical results and anthropometric measurements in morbid obesity patients

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Introduction: It was aimed to evaluate the changes in clinical findings and changes in anthropometric measurements before and after the operation of morbid obesity patients who underwent bariatric surgery

Material and Methods: Between 1 January 2016 and 1 January 2017 for a period of 1 year, Samsun 110 morbid obesity patients between 18–65 years (mean age 38.25±10.608 years) who applied to the Training and Research Hospital Nutrition and Support Unit Policlinic before the bariatric surgery operation (89 of the 110 patients who took the study and 80 (19.1%) were included in the study. These patients had a 1-week preop In the period and in the postoperative period (first 1–12 month) anthropometric Body mass index, ideal body weight, weight, height, body muscle-fat ratio, measurements of water percentage, hemogram and biochemical findings were compared. All of the clinical findings of the patients were retrospectively analyzed as a file scan. Analysis of research data was evaluated with IBM SPSS Statistics 22.0.

Results: In our study, average body weight in preop period was 129.98±18 kg, while body weight decreased to 85.774±15.42 kg in postop period. In parallel to this, average preterm birth weight was 48.876±6.71 kg / The value dropped to 35.08±7.13 kg/m^2 at the end of the post-term period. It has been found that the blood lipid profile of patients with preop and postoperative blood findings are improved in fasting blood glucose, AST, ALT values.

Conclusion: The post-operative process has vital importance. It is recommended that these patients move with dietitians, who are the most important members of the multidisciplinary team of lifelong multidisciplinary teams, in order for the given kilograms to last for a long time and for dietary behavior changes to take place.

Key words: Bariatric surgery, BMI value, morbid obesity, body weight.

PP-26

The relationship of hyperhomocysteinemia and lipid peroxidation in the progression of diabetic neuropathy

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There is evidence that hyperhomocysteinemia (HHC) is more often registered among patients with diabetes with vascular complications. Of no less interest is the possible involvement of HHC in the pathogenesis of diabetic neuropathy. Therefore, the study of the relationship between hyperhomocysteinemia and the process of lipid peroxidation (LP) in the development of diabetic neuropathy in patients with type 1 diabetes mellitus and the pharmacological correction of impaired indicators is an important task of modern diabetology. The aim of the study was to study the relationship between HHC and the process of LP in the development of diabetic neuropathy in patients with type 1 diabetes mellitus. When studying levels of enzymes AODS in the blood, significant differences between groups were revealed only by CT. So, with an average HHC, the content of this antioxidant in the blood is 1.7 and 2 times lower compared with cases of normohomocysteinemia. A similar trend was observed when comparing the levels of SOD and CT in blood at an average HHC, however, this trend is not statistically significant, which may be due to the small number of persons in this group (n=7). For the statistical evaluation of the association of HHC with oxidative-antioxidant changes, a correlation analysis was used, which, under the conditions of parametric and non-parametric distribution of symptoms, revealed a direct relationship between homocysteinemia level and MDA and AHP content in the blood ($p<0.01$) and a feedback relationship between blood HC and catalase in serum ($p<0.01$). In addition, the significant Spearman correlation coefficients are determined between the level of HC and the initial level of lipid peroxidation products in the serum.The results of the study indicate the importance and necessity of detecting HHC in patients with diabetes mellitus and the elimination of this metabolic disorder of amino acids.

Key words: Hyperhomocysteinemia, lipid peroxidation, diabetic neuropathy.

PP-27

Sleeve gastrectomy, specimens, pathologyic examination,pathology reports, obesity, morbid obesity

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Introduction: The routinization of pathological examination of sleeve gastrectomy specimens is discussed in groups of patients who undergo gastroscopy before obesity surgery and are provided with the treatment of the diagnosed endoscopic pathologies. The aim of this study was to investigate the pathological findings of postoperative gastrectomy specimens in the group of patients who underwent preoperative endoscopy in our clinic.

Material and Methods: The pathology reports of 81 patients who underwent sleeve gastrectomy between March 2017 and June 2019 were analyzed retrospectively.

Results: The ages of 81 patients who underwent sleeve gastrectomy ranged from 18 to 66 years (mean 38.5 years). The mean body mass index was found to be 46.3. All patients underwent preoperative gastroscopy, their endoscopic pathologies were evaluated, and the operations of the patients were planned after providing their treatment. In the pathological examination of the specimens, Helicobacter pylori was found to be positive in 17 patients (20.9%). While chronic active gastritis was found in 15 patients (18.5%), chronic gastritis and intestinal metaplasia were found in 40 patients (49.3%) and 9 patients (11.1%), respectively. No malignant formation was observed in any pathology specimen.

Conclusion: Even though preoperative gastroscopy was performed in the patients, it appeared that pathologic diagnoses such as Helicobacter pylori positivity, chronic active gastritis, and chronic gastritis were high in sleeve gastrectomy specimens. The detection of premalignant lesions may also be possible, although rare. Based on these results, the need for postoperative pathological examination of sleeve gastrectomy specimens is arguable.

Key words: Sleeve Gastrectomy, pathologic examination, morbid obesity, specimens, obesity treatment.

PP-28

Alcohol addiction after Sleeve Gastrectomy in bariatric surgery

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Introduction: While bariatric surgery practices are rapidly

increasing in the struggle against obesity, the shifting of individuals' psychological and addiction levels to a different direction is among the possible dangers. Studies show that obese patients, who can change their eating habits after bariatric surgery, can shift the focus of pleasure to another area and develop alcohol addiction. This aim of this study was to evaluate the risk of developing alcohol dependence in patients with sleeve gastrectomy.

Material and Methods: Demographic data (age, gender, addiction level) of 161 patients were collected between March and June 2018. After having sleeve gastrectomy surgery, 161 people were interviewed between June and July 2019 and asked again if they were drinking alcohol. Alcohol Use Disorders Recognition Test that has Turkish validity and reliability was applied to patients who used alcohol preoperatively and postoperatively.

Results: In 161 patients, 48 patients had used alcohol before surgery. 113 patients who did not use alcohol remained stable and 9 patients stopped drinking 1 year after the operation. According to the Alcohol Use Disorders Recognition Test, 28 out of 39 patients scored below 8 points and 11 patients scored above 8 points. It was found that the patients who above 8 points received the highest score (between 30–38 points), they consumed 7 to 9 units of alcohol each day, devepoled drinking behavior and addiction and experienced problems with alcohol.

Conclusion: The prevalence of alcohol use in obese patients is 29.8%, the proportion of patients who continue to alcohol after bariatric surgery is reduced to 24.22% and the rate of developing alcohol dependence is 6.83%. The determination of alcohol addiction behavior after bariatric surgery is important both in the fight against addiction and in terms of preventing weight gain that may occur with alcohol.

Key words: Obesity, sleeve gastrectomy, alcohol addiction.

PP-29

Relationship between life quality of patients before and after Sleeve Gastrectomy

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Introduction: Obesity is a public health problem that reduces the quality of life of comorbidities. In this study, the quality of life of obese individuals was evaluated before and after sleeve gastrectomy.

Material and Methods: The study included 79 patients (60 females and 19 males) with a BMI greater than 35 kg/m^2. Data were collected by WHOQOL-BREF (World Health Organization Quality of Life Scale-Short Form).

Results: The results were analyzed in SPSS 22 and the comparative table is given below. According to the postoperative findings, there are high and positive correlation (.70–.89) for general and physical health, moderate and positive with psychological health status (.50–.69) and weak and positive (.26–.49) with social and environmental status. Also, there is also a significant difference because sig. values are p<0.05.

Conclusion: It was shown that the quality of life of the patients is increasing in the first year after sleeve gastrectomy.

Key words: Life quality, Sleeve Gastrectomy, health, social, environmental.

Comparison of different status before and after sleeve gastrectomy

		Mean	Correlation	P Value	Std. Error
Pair 1	General health status	43,8038			
	1. year general health status	**67,7351**	,785	,000	1,267
Pair 2	Physical health status	57,4046			
	1. year physical health status	**74,4984**	,732	,000	1,427
Pair 3	Psychological health status	53,9520			
	1. year psychological health status	**70,4329**	,590	,000	1,750
Pair 4	Social status	55,3854			
	1. year Social status	**76,5282**	,464	,000	1,952
Pair 5	Environmental status	62,3373			
	1. year Environmental status	**72,4923**	,411	,000	1,804

PP-30

What is the incidence of Helicobacter pylori in Laparoscopic Sleeve Gastrectomy Specimens?

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Introduction: Laparoscopic Sleeve Gastrectomy is the most recent surgical practice in the surgical treatment of obesity. Endoscopic evaluation of the stomach is one of the important issues of preoperative preparation. Helicobacter pylori is a very important pathogenic agent in humans. It is responsible for many diseases such as gastritis, peptic ulcer, and gastric cancer. In this study, a group of patients who underwent Laparoscopic Sleeve Gastrectomy and had Helicobacter pylori detected in the removed gastric tissue was investigated.

Material and Methods: Between 2017–2018 in our clinic, 56 patients underwent Laparoscopic Sleeve Gastrectomy. Those patients consisted of 10 males and 46 females. All cases were completed laparoscopically. The presence of gastritis and Helicobacter pylori was investigated in all operated patients.

While Helicobacter pylori positivity was observed in 11 of stump specimens, gastritis and intestinal metaplasia were detected in 20 cases and 7 cases, respectively.

Conclusion: Laparoscopic Sleeve Gastrectomy is a reliable and effective method in the treatment of obesity. In the pathological examination of the stomach removed after Laparoscopic Sleeve Gastrectomy, the detection rate of Helicobacter pylori was found to be 19.6%. There is a need for prospective and randomized studies with a large number of patient populations for this microorganism with a high incidence in society.

Key words: Laparoscopic Sleeve Gastrectomy, Helicobacter bacter pylori, obesity treatment.

PP-31

Is there a difference between the rates of preoperative weight loss through diet and exercise and postoperative weight loss in patients undergoing Laparoscopic Sleeve Gastrectomy due to morbid obesity?

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Introduction: Bariatric surgery practices are increasing with each passing day. Among them, Laparoscopic Sleeve Gastrectomy is performed more than other bariatric surgery techniques. In the treatment of obesity that has spread in the pandemic form, medical methods, diet programs, and exercises are usually ineffective and sometimes lead to negative consequences. In this study, the rates of weight loss through diet and exercise and postoperative weight loss of the patients who attempted to lose weight through medical treatment, dietician program, and exercises and then underwent Laparoscopic Sleeve Gastrectomy in our clinic were investigated.

Results: 81 patients consisted of 65 (80.2%) females and 16 (19.7%) males, and their average age was 37 (18–66). The mean BMI (Body Mass Index) was 45.7 kg/m^2. In the 6th month follow-up, 73 of our patients were reached. The patients were questioned whether they lost weight through medical treatment, dietician program, and exercises. Of the patients included in the study, 63 reported that they resorted to exercise and dietician, however, they gained weight again after losing an average of 4–11 kg. It was observed that the patients who underwent Laparoscopic Sleeve Gastrectomy lost an average of 40–50 kg after 6 months.

Conclusion: In the treatment of morbid obesity, Laparoscopic Sleeve Gastrectomy is an effective and reliable and physiological method that can be used, and it is a safe and effective way to control weight loss.

Key words: Diet, exercise,morbid obesity, sleeve gastrectomy.

PP-32

Should pathological examination be routine for Sleeve Gastrectomy Specimens?

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Introduction: The routinization of pathological examination of sleeve gastrectomy specimens is discussed in groups of patients who undergo gastroscopy before obesity surgery and are provided with the treatment of the diagnosed endoscopic pathologies. The aim of this study was to investigate the pathological findings of postoperative gastrectomy specimens in the group of patients who underwent preoperative endoscopy in our clinic.

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Key words: Pathologic examination, specimens, obesity, obesity treatment.