## 7. TÜRK DÜNYASI KARDİYOLOJİ KONGRESİ SÖZLÜ BİLDİRİLERİ 7th TURKISH WORLD CARDIOLOGY CONGRESS ORAL PRESENTATIONS

#### Çeşitli / Miscellaneous

#### TDKB 1

# Realisation of the complex program of the control of cardiovascular diseases in the kyrgyz republic

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According to the Republican Medical-information Centre in the Kyrgyz Republic the cardiovascular diseases (CVD) take first place in structure of the general death rate each year representing the almost half of all cases of annual death.

Annually in Kyrgyzstan more than 19 thousands people die from CVD and daily - more than 50 persons. In 2008 the economic damage from premature death rate and physical inability from CVD in our country totaled more than 17 billions soms (370 million American dollars).

Taking into account that epidemiological situation combined with huge economic losses for the country, the struggle against these diseases and their risk factors was included as one of priority directions into the National program of reforming of public health of the Kyrgyz Republic «Manas Taalimi» for 2006-2010. In its framework the Complex program of the control of cardiovascular diseases in the Kyrgyz Republic is developed. Its basic goal is decrease in sickness rate, physical inability and death rate from CVD especially among able-bodied population by effective preventive measures of CVD and the control its risk factors.

The basic components of the Complex program are: 1) increasing of primary preventive measures at population level; 2) improvement of the monitoring system of CVD risk factors at the primary medicosanitary help level; 3) improvement of medical aid, secondary prophylaxis and rehabilitation of patients with CVD at all stages of medical aid; 4) strategic management of the program.

Already at the initial stages of this program's realisation the improvement of death rate indicators of the Kyrgyz population was reached. So since 2006 the death rate of the Kyrgyz population from CVD as a whole reliable has decreased by 7,3 % (from 352,5 to 326,5 cases on 100 thousand population), and in 30-39 and 40-59 years age categories its parameter has decreased by 3,9 % and 2,5 % accordingly.

The death rate from cardiovascular diseases in Kyrgyz Republic (on 100 thousand of population)

|                                      | 2006  | 2007  | 2008  | 2009   |
|--------------------------------------|-------|-------|-------|--------|
| As a whole                           | 352,5 | 351,9 | 350,8 | 326,5* |
| 30-39 years                          | 56,1  | 60,2  | 54,2  | 53,9   |
| 40-59 years                          | 333,7 | 350,6 | 329,3 | 325,3  |
| * - p <0,001 in comparison with 2006 |       |       |       |        |

Thus, the realisation of the Complex program of the control of cardiovascular diseases in the Kyrgyz Republic allows achieve decrease in death rate of able-bodied population from CVD. That is reached by increase of knowledge and adherence of the population and medical staffs in questions of preventive measures and struggle with CVD, improvement of medical aid quality at all levels of medical services.

#### TDKB 3

#### Eprosartan efficacy in patients with chronic heart failure and secondary pulmonary hypertension syndrome

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**Objective:** To study the effect of beta-blocker bisoprolol and AT-II receptor blocker eprosartan on the LV systolic and diastolic function and level of pressure in pulmonary artery in pts. with CHD, complicated CHF and secondary pulmonary hypertension syndrome.

Materials and methods: 21 patients at the age from 40 to 70 with post-infarction atherosclerosis, complicated II-III FC (NYHA) CHF and secondary pulmonary hypertension syndrome were examined. Exclusion criteria: arterial hypertension higher than degree II, obliterating lower extremities atherosclerosis, heart valvular disease. All patients were implemented with: ECG, echocardiography (Echo-CG), 6-min walk test. Life quality (LQ) was assessed with the use of Minnesota Life with Heart Failure checklist.All studies were carried out initially, in 3 and 6 months from the beginning of the therapy. Bisoprolol was administered in initial dose of 1,25 mg/day with further dose titration to 10mg/day if well tolerated, eprosartan from 300 mg/day with further dose titration to 600 mg/day.

**Results:** After 6 months of treatment the following indicators decreased evidently: EDP (from 64,39 ±2,06 to 59,12±2,13mm), ESP (from 48,28±2,37 to 41,53±2,39 mm), EDV (from 215,47±19,59 to 175,65±1,55m), ESV (from 119,76±16,26 to 82,5±17,50 ml); EF increased (from 47,33%±3,36 to 56,7±3,73 %) (p=0,04). The level of pressure in pulmonary artery (PAP) decreased statistically significantly from 41,69±1,7 to 29,7±2,22 mm Hg. (p=0,017) which indicated the improvement of LV systolic function.

The time of isovolumetric relaxation (IVRT) decreased considerably (from 126,73  $\pm$ 9,76 to 111,53  $\pm$ 5,10 months) and early diastolic filling (DT) slow-down time went up (from 121,3 $\pm$ 9,73 to 141,22  $\pm$  11,13 ms. (p $\pm$ 0,05). As a result of the therapy patient better tolerance to exercise was observed: a 6-min walk distance increased from 220 $\pm$ 23,02  $\pm$  meters to 255,94  $\pm$ 27,37 meters and patient life quality (LQ) improved indicator went down from 40,61 $\pm$ 4,95 to 30,56  $\pm$ 3,36 points) (p $\pm$ 0.05).

Conclusion: Eprosartan and bisaoprolol combined therapy in the period of 6 months improves significantly LV systolic function and some indicators that characterize LV systolic function which is attended by pulmonary artery pressure lowering, exercise tolerance increase and patient CHF II-III FC (NYHA) LQ complicated by secondary PH.

#### Çeşitli / Miscellaneous

### TDKB 2

## Risk factor score on patients with ischemic heart disease

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The goal of research is to score the profile of risk factors on patients with ischemic heart disease. There are 55 patients have been tested upon ischemic heart disease with instable pectoris and stable pectoris where 46 persons are male (83.6%) and 9 persons are female (16.4%) at the age from 29 to 72 years old. Diagnose of ischemic heart disease were testified in accordance with WHO classification (1999). The patients have been divided into two groups. The first group includes 28 patients with instable pectoris where 24 persons are male (85.7%) and 4 persons are female (14.3%). The average age is 50.89 years old +/2.10 years. The length of disease varies from 1 to 10 years (average is 4.18+/0.60 years).

The second group includes 27 patients with pectoris on III functional class tension where 22 persons are male (81.5%) and 5 persons are female (18.5%). The average age is 57.04 years old +/-1.53 years.

All patients passed through the test on risk factor of ischemic heart disease. It is learned that risk factor specter on testified patients is very wide and includes many conditions that can be corrected (like increased arterial pressure, hypertrophy of left ventricle of heart, fatness, smoking, alcohol drinking, vegetal imbalance of nervous system, heart rhythm disturbance etc.) That's why as high the level of each above mentioned indicator as more the risk of progress of cardiovascular diseases due to joint effect of this factors to each other. It is universally recognized the necessity of efforts to reduce risk factors on ischemic heart disease as well as wide usage of nonmedical treatment modes.

#### **TDKB 4**

#### Azarbaycan'da Bakü'de merkezi klinik hastanede yeni açılmış çocuk kardiyoloji klinikte yapılmış işler

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Amaç: Yeni acilmis merkezde cocuk ve genç erişkinlerde perkütan transkateter yontemle invazif girisimlerin etkinliğini ve sonuçlarını değerlendirmek.

Yöntem ve gereçler: Transtorasik ekokardiyografi ile degerlendilen hastaların sağ ventrikül hıpertrofileri belirtileri gösteren pulmoner kapak stenozlu, sol ventrikül hıpertrofileri belirtileri gösteren Aort kapak stenozlu ve sekundum ASD'li olgular transkateter kapatma amacıyla kateter laboratuarına alındı. Pulmoner ve Aort kapaklarin ve ASD lerin defektin çapı, total septum çapı, defektin anterosuperior, anteroinferior (AV kapak), posterosuperior ve posteroinferior rimleri ölçüldü. ASD li hastalarda Aortik rim dışındaki septal rimleri yeterli olan ve hesaplanan Qp/Qs'i >1.5 bulunan hastalar kapatma girişimi yapıldı. Kapak hastalarda daha once Ekokardiyografide olculmus anuluslari dikkate alınarak ve ASD hastalarda kullanılacak cihaz çapı statik balon ile "gerilmiş çap" ölçülerek belirlendi.Balon valvuloplasti ve ASD implantasyondan hemen sonra, ertesi gün, 1, 3, 6. ve 12. aylarda ekokardiyografik inceleme kapaklarda rezidü darlik ve ASD lerde Implantasyon sonrasi rezidu yant araştırıldı.

Bulgular: 2009 Aralik-2010 Mayıs aylar arasında kliniğimizde toplam 10 olguya Pulmoner balon Valvuloplasti, 2 olguya Aort balon valvuloplasti, 3 olguya ASD kapatılması amacıyla invaziv girisimler yapıldı.Pulmoner kapak hastalardan 2 si kritik pulmoner stenoz hastalar,Aort kapak hastalardan 1 si kritik aort stenozlu hastalardir.3 ASD li hastalardan 2 olguda işlem transezofajiyal ekokardiyografi (TEE) eşliğinde,1 olguda transtorasik ekokardiyografi (TTE) eşliğinde gerçekleştirildi. (3 Amplatzer septal occluder (ASO)) implantasyon başarılı oldu.Pulmoner kapak hastalardan 10 olgunun 2 de displastik pulmoner kapak hastalığı oldugu icin balon valvuloplasti islem sonrasi indentasyon yeterli duzeyde gelismedi ancak diger 8 hastadı indentasyon tam gelisti. Aort kapak hastalırında balon valvuloplasti islem sonrasi her 2 olguda tam indentasyon yapıldı. Ayrıca klımığımızde kısa sure ıcınde 58 Dogumsal kalp hastalıkları tanısı ıle takıb edilen hastalarda

Sonuçlar: ASO çok geniş ve kompleks defektler de dahil olmak üzere transkateter ASD kapatılmasında başarı ve güvenle kullanılabilen bir cihazdır. Tyshak balon kritik darlıklardada rahatliklada kullanılan bir cihazdır. Bu malzemeler az sayıda olguda başarılı ve güvenilir bulunmuştur.

#### TDKB 5

#### Sanatorium rehabilitation sick of the myocardium heart attack

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Sanatorium "Barnaul

Research objective: to study influence of various rehabilitation programs against complex sanatorium treatment on the psychoemotional status and quality of a life at the patients, transferred a heart attack of a myocardium (MI).

Material and methods. It has been surveyed 109 patients receiving treatment in branch of rehabilitation of sanatorium "Barnaul". Patients have been divided into three groups: in the first (39 people) - were conducted lessons physiotherapy exercises in a hall and bicycle training sessions, and also hypnosis, in the second (35 people) - in addition to the usual rehabilitation program were added trainings on a racetrack, in the third (35 people) - were spent trainings on a racetrack and sessions of a biological feedback on hardware-software complex Boslab.

As criteria of efficiency of treatment following techniques were used: the test of Spilbergera-Hanina for definition of level of the uneasiness, the reduced multifactorial questionnaire for research of the person (SMOL), qualities of a life under test Health Status Survey (SF-36). Researches were spent at 2 stages: 1st - in an initiation of treatment in rehabilitation branch; 2nd - 3 days prior to an extract from sanatorium.

Results. At entering in sanatorium the average index of jet alarm under the test of Spilbergera-Hanina at patients in the first group has made  $30,1\pm1,3$  a point, in the second -  $28,7\pm1,3$  a point, in the third -  $26,5\pm1,2$  a point; the average index of personal alarm in the first group has made  $46,5\pm1,4$  a point, in the second -  $43,8\pm1,4$  a point, in the third -  $44,2\pm1,3$  a point. At an extract from sanatorium in the first and in the second groups in comparison with an initiation of treatment of authentic changes has not occurred.

In the end of sanatorium rehabilitation the average index of personal alarm has decreased in the second group in comparison with entering (with 43,8±1,4 to 39,4±1,3 a point; p < 0,05). At comparison of results authentic distinctions in indicators of personal alarm between the first and second groups (45,5±1,3 and 39,4±1,3 a point are revealed; p < 0,05), and also between the third and the second (43,9±1,4 and 39,4±1,3 a point; p < 0,05).

Under the test «SF-36» indicators of quality of a life in all groups before treatment essentially did not differ. Low indicators are revealed on scales: «the general health», «a physical role», «an emotional role» and «social functioning».

After a course of complex rehabilitation positive dynamics of indicators of quality of a life in the first and in the second groups is marked, and in the third - statistically significant changes have not occurred. In the end of rehabilitation in the first group under the test «SF-36» indicators of quality of a life have increased in comparison with an initiation of treatment on a scale viability (with 57.9 $\pm$ 3.0 to 65.9 $\pm$ 2.4 a point; p <0.05). In the second group indicators of quality of a life have increased in comparison with an initiation of treatment on scales: «a physical role» (with 18.7 $\pm$ 5.2, to 36.3 $\pm$ 6.3 a point; p <0.05), «an emotional role» (with 37.2 $\pm$ 6.7 to 55.5 $\pm$ 6.2 a point; p <0.05), «intensity of a pain» (with 49.8 $\pm$ 4.5 to 67.8 $\pm$ 4.4 a point; p <0.05) and «a self-estimation of mental health» (with 65.1 $\pm$ 3.2 to 74.1 $\pm$ 2.6, a point; p <0.05). The obtained data testifies to improvement of a condition of physical health, decrease in degree of exhaustion and nicrease of vial activity.

Results of research of the psychoemotional status of patients before treatment testified that the average personal profile of the test of SMOL at patients in all groups has been located within standard "corridor".

After a rehabilitation course in all groups indicators of a personal profile have not changed in comparison with an initiation of treatment.

Thus, against a complex sanatorium therapy the most effective is application trainings on a racetrack, influencing positively on the psychoemotional status and quality of a life at patients (MI).

#### TDKB 6

#### ST segmanının elevasyonuyla akut koroner sendromu olan hastalarda miyokardın reperfüzyon hasarına korvitinin etkisi

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ST segmanı elevasyonuyla akut koroner sendromunda (Akut Koroner Sendrom + ST), oklüze olan koroner arterde kan akışının yeniden tesisi, bazı durumlarda miyokardın reperfüzyon hasarına (RH) yol açar ki, kemikleşen miyokardın işlevini geri kazanması hususunda olumsuz etkide bulunur. Miyokart RH'si aşağıdaki şekillerde ortaya çıkar: Reperfüzyon aritmileri, miyokart "şoku" fenomeni (myocardial stunning), doku düzeyinde koroner kan akışının yeniden tesis edilememesi (no-reflow fenomeni), kardiyomiyositlerin hızlı gelişen nekrozu. Miyokardın reperfüzyon hasarını zaltınak amacıyla, hayatı tehdit eden aritmilerin gelişmesini ve aynı zamanda RH'nin kili patojenik unsurlarına etkiyi önlemek için kardiyoproteksiyon metotlarının geliştirilmesi icap etmektedir. Bazı yazarlar, kvarsatının kardiyoprotektör etkisine işaret etmektedirler (Korvitin, Ukrayna. Borşagovskiy Kimya ve Farmasötik ürünler Fabrikası).

Araştırmanın amacı, kvarsatinin (dahili enjeksiyonlar için korvitinin) suda çözünür türlerinin Akut Koroner Sendrom + ST hastalarında miyokart RH'sine etkisini öğrenmektir.

Malzemeler ve yöntemler: Araştırma, hastalığın ortaya çıktığı andan itibaren ilk 6 saat içinde hastaneye kaldırılan, 21 ila 72 yaş arası AKS+ST hastalarının 134'ü üzerinde tatbik edilmiş bulunmaktadır. Tüm hastalar reperfüzyon terapisine (RT) tabi tutulmuşlardır (70 hasta, trombolitik terapiye tabi tutulmuş, 64 hasta ise oklüze olan koroner arterlerin anjiyoplastisine tabi tutulmuştur). Hastalar iki gruba bölünmüştür: I. grupta, baz terapiye ilaveten, hastaneye kaldırdıktan sonra, Borşagovskiy Kimya - Farmasötik Ürünler Fabrikası tarafından hazırlanan formüle göre (Patent No.37575a) damar içi damla şeklinde 30-45 dakika korvitin verilen 66 hasta bulunmaktadır. II. grupta ise korvitin verilmemiş olan 68 hasta bulunmaktadır.

Süreçte EKG dinamiği incelenmiş, EKG'nin (KM) günlük takibi ve kalp içi hemodinami parametreleri takip edilmiştir, hastalığın 10. gününde 83 hasta, dobutamin (DSE) ile stres-ekokardiyografiye tabi tutulmuştur.

Araştırma sonuçları ve görüşler: Korvitinin damar içi enjeksiyonu bazında RT, II. gruba kıyasla daha pürüzstüz geçmiştir. Takip sonuçlarına göre fazla QRS komplikasyonlu taşikardı (%35) ve Karıncıkların Fibrilasyonu (%28) kontrol grubunda daha sık görülmüştür. Korvitin alan hastalarda supraventriküler taşikardi (%28), hızlı idioventriküler nabız (%16), polimorf, çiftli karıncık ektopik kasılmalar şeklinde nabzın peperflüzyon bozulması durumu görülmüştür ve bunların durdurulması için antiaritmik tedaviye ihtiyaç duyulmamıştır. I. grupta reperfüzyon terapi sırasında hastaların %24'ınde Sitolik Arteriyal Basıncın 80 mm Hg altına düştüğü, Diyastolik Arteriyal Basıncın 50 mm Hg altına düştüğü görülmüştür, kontrol grubunda ise bu düşüş durumu %43 oranında görülmüştür ve bunların durdurulması için damar için dopamin inflüzyonu yapılmamıştır. I. grupta hipotansiyon kıs sürelidir ve durumların %8'ınde, 60 mg prednizolon ve mezatonun perkütan verilmesinden sonra normalleşmiştir.

Ayrıca, I. Grup hastaların 1. gününde AB blokaj sayısında azalma görülmüştür (sırasıyla %4,3 ve %12,4, p< 0,05).

Her iki grupta bulunan hastaların EKG analizinin dinamiği, ST segmanının izoçizgiye dönüş için ortalama süresinin I ve II. gruplarda sırasıyla 4,7±1,1 ve 5,9±1,5 saat olduğunun tespitini sigalamıştır. Muteber dinamik, EKG'de T negatif dişinin oluşması sırasında tespit edilmiş bulunmaktadır. I. grup hastalarda bu süre 7,2±1,3 saat olarak gerçekleşirken, diğer grupta 9,7±2,1 saat (p=0,049) olarak gerçekleşmiştir. Oluşan nekroz bölgelerinin dolaylı işaretçisi olarak Q patolojik dişinin varlığıyla ortalama derivasyon miktarı tedavi grubunda 2,8 olmuş ve kontrol grubunda ise 3,4 olarak gerçekleşmiş olduğu gözlemlenmiştir. Az dozlu I. DSE grubunda, tüm asinerjik segmanların %86'sında miyokardın yaşama gücü gözlemlenmiştir. H. grupta sol karınıcık miyoardının disfonksiyonu, segmanların %32'sinde geri dönüşümsüz, %53'ünde ise geri dönüşümlüdür. Bir ay sorra I. grup hastalarının EKG'sinde yaşam gücü olan tüm segmanlarda kasılıma fonksiyonunun geri kazanıldığı görülmüştür. Fakat II. grupta bir ay sonra, tespit edilen yaşam güçlü beşemanların %6'sında kasılma fonksiyonu geri kazanılanamıştır. Global sistolik fonksiyon göstergeleri korvitin grubunda, kontrol grubuyla kıyaslandığında hayli yüksek olmuştur (sol karıncık Villebrand faktörü sırasıyla %54±3,5 ve %49,2±3,5% çıkmıştır). AKS+ST hastalarında reperfüzyon terapisi, sol karınıcığın dilatasyonunun önlenmesine yardım etmek, fakat sol karınıcığın hacim göstergeleri, hastalarının tedavi planına korvitinin dahil edilmesi, hastalığın klinik tedavisini iyileştirmekte, miyokart infraktüslinün sınırlanmasına getirmekte, miyokart RH'sını azaltmak yoluyla miyokardın elektrik istirkarını atrımaktadır.

Sonuçlar: 1. Reperfüzyon terapisi bazında korvitinin kullanımı, hastalığın klinik tedavisine olumlu tesir etmekte, hastalığın ilk günlerinde AKS'de hayatı tehlikeye atan komplikasyonların gelişmesini bildirmektedir. Miyokardın revaskülarizasyonu sırasında reperfüzyon terapisine korvitinin eklenmesi, ST segmanın hızlı azalmasına yol açar ki, miyokardın başarılı reperfüzyonunun ön işaretçisidir ve ayrıca T negatif dişinin daha hızlı oluşmasına getirmektedir.

2. Korvitin bazında reperfüzyon tedavisinin yapılması, geri dönüşümsüz disfonksiyonların gelişmesinden miyokardı muhafaza etmekte, sönümleşen perinfarktüs bölgelerinin oluşmasını temin etmekte ve bu bölgelerin kasılma fonksiyonlarının daha hızlı ve tam geri kazanımını sağlamaktadır. Korvitin, kalp içi hemodinamiğe olumlu etki etmekte, miyokart revaskülarizasyonuna tabi tutulan AKS hastalarında ekokardiyografi verilerine göre sol karıncık dilatasyonunu önlemektedir.

#### TDKB 7

#### Assessment of clinical course of essential arterial hypertension depending on an index of weight of body at patients

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The risk factor can be causally connected with development of disease or cause the last through influence on other determinants. That the risk factor causally is not connected with disease, does not reduce its importance in respect of a disease prediction, however elimination of this factor can not lead to decrease in risk of occurrence of disease.

On literary data one more theory of pathogeny AH by the obesity in accordance with which growth AP is caused by increase of lepcin level at these patients. Lep-cin is a hormone synthesised by adipocytes of visceral fatty fabric, and its level closely correlates with an index of weight of a body (IWB).

Research objective: The purpose of the present research was studying of duration of an arterial hypertension at patients with essential arterial hypertension depending on an indi-cator of an index of weight of a body (IWB).

Materials and methods. It has been surveyed 121 persons (40 men and 81 women) able-bodied age with the essential arterial hypertension diagnosis (EAH) 1 - 2 degrees. Patients have been divided into 3 groups: in group 1 were persons with IWB -25 kg/m2 (normal weight) - 18 persons, in 2 group - patients with IWB-25 kg/m2, but -30 kg/m2 (the raised weight) - 48 persons, and in 3 group - patients with IWB-30 kg/m2 (adipo-sity)-55 the person. Diagnosis verification in groups was spent on the basis of the given clinical, laboratory and tool researches. On a sex, age, a spectrum and expres-siveness of an accompanying pathology of distinctions between groups was not.

**Results:** Among the surveyed patients with EAH diagnosis of 1-2 degrees at 14.9 % the normal weight of a body was marked, average index IWB in this group was - 22,7±2,2 kg/m<sup>2</sup>; at 39,7 % the raised weight of a body, average index IWB in group has made - 27,4±1,3 kg/m<sup>2</sup>; and adiposity was diagnosed for 45,4 % with average index IWB - 34,4±3,9 kg/m2. Also, attracts at tention a direct communic-ation at patients with EAH between IWB and duration of occurrence of a syndrome of an arterial hypertension. Thus, direct correlation between IWB and duration of a syndrome of an arterial hypertension at patients with EAH is established.

#### **TDKB 9**

#### Features of regulatory mechanisms of autonomic nervous system of patients with arterial hypertension with violation of the daily profile of arterial pressure

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Insufficient night reduction of the arterial pressure connects with the raised risk of complications of hypertonic disease (HD). Variability of rhythm of heart (VRH) is an indicator of activity of the sympathetic and parasympathetic departments of autonomic nervous system.

The goal of the investigation is a determination of features of VRH of patients with HD with different types of the daily rhythm of the arterial pressure. 74 male patients with HD of I-II stage and with arterial hypertension of 1-2 degree (middle age 47,24±8,56) were observed, and also the control group - 16 healthy young people (middle age 34,6±5,2). The bifunctional daily monitoring and echocardiographic observation were fulfilled for the patients. "non-dipper" (ND) is consist of patients with insufficient night reduction of the arterial pressure (<10%), "dipper" - (D)-patients with adequate night reduction of the arterial pressure (10-20%). The following features of the patients with HD of ND unit in the comparison with the unit D were revealed: raising of the variability of systolic arterial pressure in the day and night time, increasing of the capacity of fluctua-tions in the low frequencies (in the night and in twenty-four hours), decreasing of the capacity of fluctuations in the high frequencies (in the night), decreasing of the night values of pNN50 and rMSSD. Parameters of VRH of the patients of the control group with insufficient night decreasing of the arterial pressure didn't differ from their values of the healthy dippers. All of the parameters of VRH of the patients of D unit were characterized the reliable daily rhythmicity, which was violated on the patients of ND unit. By the indicators of the central hemodynamic there are no any differences between the units D and ND. The received results testify about the increasing of the activity of the sympathetic department of autonomous nervous system of the patients of HD "nondippers" as in whole within the twenty-four hours, as in the night at the violation of the circadian rhythm of the activity of the autonomic nervous system, that it may be a base for the increasing of the frequency of the cardiovascular complications of this category of HD patients.

### TDKB 8

## Effect of $\beta$ -adrenergic receptors blockers to sexual function of men with arterial hypertension

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Antihypertensive therapy makes essential effect to the course of an arterial hypertensia (AE) and development of its complications. At the same time it is known, that therapy by

 $\beta$ -Adrenergic Receptors blockers leads to decreasing of libido, to development or difficulty of erectile dysfunction. Mechanisms of negative influence of  $\beta$ -Adrenergic Receptors blockers to sexual function are studied insufficiently, There are certificates about decreasing of the level of testosterone under the influence of these preparations.

However, despite obvious importance of this problem, development of mechanisms of androgenic deficiency at the present time are not investigated, as well as the role of modern antihypertensive therapies in pathogenesis of this infringements is not estimated.

**Purpose of the work:** To study influence of  $\beta$ -Adrenergic Receptors blockers to sexual function of the men with arterial hypertensia.

Materials and methods: For the decision of tasks put it has been surveyed 36 men suffering essential AE. If stage of the disease, accepting metoprolol in a daily dose of 100 mg. Control group consisted of 20 men with essential AE of II stage, accepting antihypertensive preparations. The age of patients in both groups has made 35-55 years.

For studying of conditions of sexual function at men with AE and estimation of influence to it of antihypertensive therapy the scale of the international index of erectile functions was used. Research in blood of levels of androgens is carried out by radioimmunoassay methods.

Results. The estimation of changes of clinical and laboratory data at men with AE was spent prior to the beginning of treatment and to 30th day of antihypertensive therapy with metoprolol.

Research of indicators of sexual function has shown, that at 18,4 % of the surveyed men with AE, accepting metoprolol, erectile dysfunction has been revealed. Treatment by metoprolol led to authentic decrease in level of libido and satisfactions by coitus, as well as led to decreasing of androgens level in blood.

Before treatment TCB in blood made 0.27 nmol.l (0,11-0,31 nmol.l), and for 30th day of therapy - 0,22 nmol.l (0,19-0,46 nmol.l)

**Conclusion.** Thus, antihypertensive therapy by metoprolol leads to decreasing of content of the main androgen in blood that promotes deterioration of conditions of sexual function and decreasing of libido level at men with AE.

#### **TDKB 10**

## Hormonal function of the system hypophysis-gonad at men with arterial hypertensia

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Arterial hypertensia (AG) is one of actual problems of modern medicine. It is connected not only with increase in frequency of disease, but also with the tendency of its development in persons of young age. At men the course of this disease has the some features.

It is supposed, that deficiency of androgens not only makes heavier course of AG, but also promotes development of infringements of sexual function in men. However, in the literature development mechanisms of androgen deficiency, as well as the role of modern antihypertensive therapies in pathogenesis of these infringements are reflected insufficiently.

Purpose. Studying of hormonal function of system a hypophysis-gonad at men with an arterial hypertensia.

Materials and methods. We survey 46 men patients with essential arterial hypertensia I-II stages of disease by classification of VNOK – 2004. Age of patients varied from 35 till 55 years. The control group was made by practically healthy 16 men of the same age. Concentration in serum of blood free of testosterone (TcB), lutropine (LG), follitropine (FSG), estradiol and cortisol was defined by radioimmunological methods.

**Results.** Studying of condition of sexual function at men with AG was spent by method of comparison of investigated parameters with similar indicators at healthy men of the same age.

Results of our researches have shown, that at 62,1 % of the surveyed men with AG infringement of erection of various severity level is revealed. From them of 50,2 % of patients AG of moderate degree, 31,6 % of average degree and 18,2 % medium degrees. Infringements of erection of heavy degree in surveyed group of the men of AG did not meet.

During research authentic decrease in the maintenance of androgens of testicular origins (TcB) in blood at patients with AG, in comparison with control group has been revealed. Levels of LG and FSG have appeared comparable in both groups.

Ratio LG/T reflecting sensitivity of cells of Leydig's testicles to hypophyseal influence of LG has appeared above in group of patients with AG. Concentration in serum of blood of the men sick AG estradiol, prolactin and cortizole have appeared authentically high in comparison with group of healthy men.

Conclusion. The revealed infringements of variety of indicators of system gonadostat testify that the arterial hypertensia is risk factor of infringement of sexual function at men.

### TDKB 11

#### Pulmonary artery pressure level in patients with chronic heart failure, complicated pulmonary hypertension

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**Objekt:** to study the relationship of level of pressure in pulmonary artery and LV systolic and diastolic function in pts. with coronary artery disease (CAD), complicated CHF and secondary pulmonary hypertension syndrome.

Materials and Methods: 108 patients with post-infarction atherosclerosis, II-III FC CHF and secondary pulmonary hypertension were examined.

Systolic pulmonary artery pressure (PAP) was calculated by using the Bernolli equation to measure the systolic gradient between right ventricle and atrium. A correlation analysis was made using non-parametric Spierman coefficient to study parameters defining pulmonary artery pressure.

**Results:** All patients were divided into 2 groups by PAP level (more and less than 45 mm Hg). First group with PAP level >45 mm Hg showed the presence of systolic dysfunction (EF<45) and the restrictive type of diastolic dysfunction. Second group with PAP level <45 mm Hg demonstrated a moderate lowering of LV systolic function (EF from 45 to 55) and the presence of pseudonormal type of diastolic disorders.

The aggregate correlation analysis showed that the principal factors defining PAP level in patients with secondary pulmonary hypertension apart from systolic disorders, are the LV diastole features. For systolic PAP (PAP-EF- r=-0, 43 (p <0.05), which indicates a mean correlation between the signs. For systolic PAP -severity DD -r=-0, 86 (p <0.05) which indicates a strong correlation between the signs.

Discussion: According to our investigation systolic PAP depends on the type of diastolic dysfunction more than of systolic dysfunction.