



DOI: 10.5505/anatoljfm.2021.81300

Anatol J Family Med 2022;5(1):28–31

Evaluation of Therapeutic Abortion in a Secondary Level Public Hospital

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ABSTRACT

Objectives: Abortion is one of the most common complications of pregnancy. The World Health Organization defines abortion as the fetus being expelled from the uterus under 20 weeks or the discarded fetus weighing less than 500 g. The aim of the study was to determine the causes of medical abortion.

Methods: The data of this descriptive study were obtained from women who applied to Kars Harakani State Hospital Gynecology and Obstetrics Clinic and underwent medical abortion between January 2019 and December 2020. All data were obtained from hospital records retrospectively.

Results: Totally, 391 women enrolled in the study. It was found that 217 (55.5%) medical abortions were anembryonic, 50 (12.8%) were spontaneous abortions, 111 (28.4%) were intrauterine exitus, 7 (1.8%) were due to babies with chromosomal abnormalities, and 6 (1.5%) were performed due to maternal chronic disease. Two hundred and eighty-one (71.9%) patients were in the age range 20–35 years, 277 (70.8%) had no history of abortion, and 33 (8.4%) of them were university graduates.

Conclusion: Anembryonic pregnancy, chromosomal anomaly, and spontaneous abortion were the most frequent reasons for medical abortion. Pregnant women at risk should be directed to the upper center for further diagnosis and treatment.

Keywords: Pregnancy, therapeutic abortion, missed abortion



Please cite this article as:
Türker ÜA, Güçlü T. Evaluation of Therapeutic Abortion in a Secondary Level Public Hospital. Anatol J Family Med 2022;5(1):28–31.

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Received Date: 17.01.2021

Accepted Date: 17.05.2021

Published online: 28.04.2022

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INTRODUCTION

Abortion is one of the most common complications of pregnancy. The World Health Organization defines abortion as the fetus being expelled from the uterus under 20 weeks or the discarded fetus weighing less than 500 g.^[1]

Abortions can be voluntary or due to medical necessity. Optional abortion mostly occurs as a result of unplanned pregnancy. In addition, the frequency of voluntary abortion increases because of economic problems, divorce, death of the partner, and the mother being very young.^[2] Although therapeutic abortion performed due to medical necessities has not been fully elucidated etiologically, immunological factors, uterine anomalies, infections, chromosomal anomalies, and structural or chromosomal anomalies of the fetus stand out as the main accused factors.^[3] Therapeutic abortion has important health effects (physical, mental, and social), especially for the mother. Studies have shown that after therapeutic abortion, feelings such as hurt, anger, anxiety, and guilt can occur in women.^[4–6]

In this study, it was aimed to define the reasons for therapeutic abortion in a secondary line public hospital.

METHOD

This descriptive study was conducted in Kars Harakani State Hospital Gynecology and Obstetrics Clinic between January 2019 and December 2020. All of the women's records with the diagnosis of therapeutic abortion were included in the study. All hospital-based recorded sociodemographic data (age, education, health insurance, income, marital status, and kinship) and biodemographic information (pregnancy and birth count, abortion history, gestational week, chronic diseases, and child count) were evaluated. The income level is defined by the monthly income level that meets the monthly expense level. Records about the type of therapeutic abortion intervention (use of balloon and transfusion requirement) and its result were also evaluated.

Abortus is defined as loss of pregnancy before 20 weeks of gestation or removal of fetus below 500 g. An anembryonic pregnancy is a situation in which gestational sac grows but the embryo fails to develop. In this case, loss of pregnancy takes place before 13 weeks.^[7] On the other hand, spontaneous abortion is defined as early pregnancy and the loss takes place between 13 and 20 weeks of gestation. In utero fetal death is defined as the delivery of a fetus showing no sign of life before 20 weeks.^[8]

The data of the research were analyzed in the Statistical Package for the Social Sciences (SPSS) package program. Frequency and percentage were used as descriptive statistics.

RESULTS

In total, the records of 391 women were evaluated. Two hundred and eighty-one (71.9%) patients were in the age range 20–35 years, 277 (70.8%) had no history of abortus, and 33 (8.4%) of them were university graduates. The distribution of sociodemographic and biodemographic characteristics according to the cause of abortion is summarized in Table 1.

Considering all abortions, 217 (55.5%) of abortions were due to anembryonic pregnancies, 50 (12.8%) were due to spontaneous abortions, 111 (28.4%) were due to in utero exitus, 7 (1.8%) were due to malformations, and 6 (1.5%) were due to chronic disease in the mother. The frequency of kinship was 96 (24.6%).

None of the patients in the study required a hysterectomy, but in 3 (0.8%) patients required transfusion, an intrauterine balloon was required 12 (3.1%) patients. The distribution of treatment features according to the cause of curettage is summarized in Table 2.

DISCUSSION

Therapeutic abortion is one of the most important traumatic factors a woman can experience in her life. It can affect women psychologically and can cause a loss of economic and social status. For this reason, defining medical abortion is one of the first steps to solving the problem. It was found that the most frequent cause of therapeutic abortion was anembryonic pregnancy, and medical abortion was more frequent in women in the age range 20–35 years. Kinship frequency was quite high (24.6%). None of the patients in the study required a hysterectomy, but in 0.8% patients required transfusion, an intrauterine balloon was required 3.1% patients.

As it is known, anembryonic pregnancies are defined as having an average sac diameter of 25 mm and above on transvaginal ultrasonography and the absence of fetal elements.^[9] In this study, anembryonic pregnancies accounted for more than half of therapeutic abortions. A similar study conducted in Turkey, unlike this study, has included unwanted pregnancies. When unwanted pregnancies are excluded, similar to this study, anembryonic pregnancy was the first reason for medical abortion.^[1] In the examination of abortion in the first trimester, anembryonic pregnancy constitutes the majority of pregnancy losses.^[10,11] On the other hand, in this study, after anembryonic pregnancy, intrauterine exitus and spontaneous abortion were the second and third most common medical abortions, respectively. There is a similar ranking in the study by Orgül et al.^[1]

In this study, 12.8% of the cases were spontaneous abortions. Although the frequency rate is not the same in various studies, spontaneous abortion has an important place among therapeutic abortions.^[12] Andersen et al., similar to this study, reported that spontaneous abortion increases with age.^[13]

In the literature, it is observed that 50% of miscarriages under 11 weeks are caused only by chromosomal anomalies.^[14,15] In this study, unlike other studies, the rate of medical abortion performed due to chromosomal anomalies was found to be 1.8%. The reason for this situation is that medical abortion was performed with chromosomal anomalies as a result of only amniocentesis or chorionic villus sampling, and only these pregnant women were included in the study. In addition, this may be due to the absence of a genetic center in our hospital that can conduct genetic analysis of abortion materials. Maternal chronic diseases such as diabetes and uncontrolled high blood pressure can cause structural abnormalities and risk the life of the mother. In these cases, pregnancy is terminated by the physicians by issuing a termination report with the approval of the family.^[16] In this study, this rate was determined to be

Table 1. Distribution of biodemographic characteristics according to the cause of abortion

	Anembryonic pregnancy (n=217)	Spontaneous abortion (n=50)	In utero exitus (n=111)	Baby with chromosomal anomaly (n=7)	Maternal chronic disease (n=6)
Age groups					
<20 years	9 (4.1)	3 (6.0)	1 (0.9)	2 (28.6)	0 (0.0)
20–35 years	160 (73.7)	35 (70.0)	79 (71.2)	2 (28.6)	5 (83.3)
>35 years	48 (22.2)	12 (24.0)	31 (27.9)	3 (42.8)	1 (16.7)
Gravida					
1	50 (23.0)	6 (12.0)	20 (18.0)	2 (28.6)	2 (33.2)
2	58 (26.7)	16 (32.0)	35 (31.5)	1 (14.3)	1 (16.7)
3	51 (23.5)	19 (38.0)	27 (24.3)	3 (42.8)	1 (16.7)
4	28 (12.9)	4 (8.0)	12 (10.8)	0 (0.0)	1 (16.7)
≥5	30 (13.9)	5 (10.0)	17 (15.4)	1 (14.3)	1 (16.7)
Parity					
0	64 (29.5)	12 (24.0)	24 (21.6)	2 (28.6)	2 (33.3)
1	65 (29.9)	19 (38.0)	34 (30.6)	2 (28.6)	1 (16.7)
2	55 (25.3)	13 (26.0)	35 (31.5)	3 (42.8)	2 (33.3)
≥3	33 (15.3)	6 (12.0)	18 (16.3)	0 (0.0)	1 (16.7)
Abort					
0	151 (69.6)	34 (68.0)	83 (74.7)	5 (71.4)	4 (66.7)
1	50 (23.0)	11 (22.0)	23 (20.7)	1 (14.3)	2 (33.3)
≥2	16 (7.4)	5 (10.0)	5 (4.6)	1 (14.3)	0 (0.0)
Live birth					
0	64 (29.5)	13 (26.0)	24 (21.6)	2 (28.6)	2 (33.3)
1	66 (30.4)	18 (36.0)	37 (33.3)	2 (28.6)	1 (16.7)
2	57 (26.3)	13 (26.0)	35 (31.5)	3 (42.8)	2 (33.3)
≥3	30 (13.8)	6 (12.0)	15 (13.6)	0 (0.0)	1 (16.7)
Kinship					
Yes	48 (22.1)	11 (22.0)	34 (30.6)	1 (14.3)	2 (33.3)
No	169 (77.9)	39 (78.0)	77 (69.4)	6 (85.7)	4 (66.7)
Health insurance					
Yes	162 (74.6)	26 (52.0)	70 (63.0)	5 (71.4)	5 (83.3)
No	55 (25.4)	24 (48.0)	41 (37.0)	2 (28.6)	1 (16.7)
Income level					
Enough	25 (11.5)	14 (28.0)	20 (18.0)	3 (42.8)	2 (33.3)
Middle	149 (68.6)	27 (54.0)	66 (59.5)	3 (42.8)	3 (50.0)
Insufficient	43 (19.9)	9 (18.0)	25 (22.5)	1 (14.4)	1 (16.7)
Civil marriage					
Yes	198 (91.2)	46 (92.0)	105 (94.5)	7 (100)	6 (100.0)
No	19 (8.8)	4 (8.0)	6 (5.5)	0 (0.0)	0 (0.0)
Level of education					
No education	33 (15.2)	7 (14.0)	25 (22.5)	0 (0.0)	0 (0.0)
Primary school	71 (32.7)	22 (44.0)	31 (27.9)	2 (28.6)	4 (66.6)
High school	99 (45.6)	16 (32.0)	44 (39.6)	3 (42.8)	1 (16.7)
University	14 (6.5)	5 (10.0)	11 (10.0)	2 (28.6)	1 (16.7)

Data are presented as n (%).

1.5%. In the study of Örgül et al., this rate was 9.8%.^[1] The fact that most of the patients prefer to be treated in tertiary care centers, as our hospital is a second-line hospital, may explain the difference.

CONCLUSION

In conclusion, anembryonic pregnancy, chromosomal anomaly, and spontaneous abortion come to the fore in terms of medical abortion indications. It was shown that

Table 2. Distribution of treatment features according to the cause of curettage

	Anembryonic pregnancy (n=217)	Spontaneous abortion (n=50)	In utero exitus (n=111)	Baby with chromosomal anomaly (n=7)	Maternal chronic disease (n=6)
Use of balloons					
Yes	6 (2.8)	1 (2.0)	5 (4.5)	0 (0.0)	0 (0.0)
No	211 (97.2)	49 (98.0)	106 (95.5)	7 (100.0)	6 (100.0)
The need for transfusion					
Yes	1 (0.5)	0 (0.0)	2 (1.8)	0 (0.0)	0 (0.0)
No	216 (99.5)	50 (100.0)	109 (98.2)	7 (100.0)	6 (100.0)

Data are presented as n (%).

family history, ethnicity, obstetric history, and genetic analysis can help to find clues related to congenital anomalies. Because birth defects are important public problems, preventive measures must be taken early.

Disclosures

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

Ethics Committee Approval: Ethical approval was obtained from the Kafkas University Faculty of Medicine ethics committee (Approval date: Nov 25, 2020, and Approval number: 80576354-050-99/245).

Funding: None.

Authorship Contributions: Concept – U.A.T., T.G.; Design – U.A.T., T.G.; Supervision – U.A.T., T.G.; Materials – U.A.T., T.G.; Data collection and/or processing – U.A.T., T.G.; Analysis and/or interpretation – U.A.T., T.G.; Literature search – U.A.T., T.G.; Writing – U.A.T., T.G.; Critical review – U.A.T., T.G.

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