

## STUDY OF THE RELATIONSHIP BETWEEN GENETIC FACTORS AND THE REPRODUCTIVE HISTORY OF THE MOTHER IN EMBRYO DEATH

Asrankulova Diloram Bakhtiyorovna,  
Asrankulova Saida Kahramonjon kizi,  
Akhmadzhonova Gulnoza Murodovna

### ABSTRACT

Global scientists recognize that increased risk of fetal death, especially spontaneous abortion, increasing maternal age, previous spontaneous abortions, and multigravid status are favorable risk factors for spontaneous abortion in subsequent pregnancies. Because these factors are interrelated, maternal age, given a woman's reproductive history, may influence embryonic mortality.

**Keywords:** embryon, fetal death, habitual abortion.

### INTRODUCTION

Currently, the main focus of modern obstetrics is on the treatment of infertility worldwide. Although the clinical pregnancy rate has gradually improved in recent decades, the pregnancy retention rate is still low, only 38.1% [1]. Pregnancy loss is the spontaneous death of an embryo during pregnancy [2]. This includes non-visual embryonic losses and clinical pregnancy loss [3,6]. In addition, fetal death is associated with physical and psychological trauma [5,6]. Therefore, it may be important to study the frequency of reproductive losses in women with a history of spontaneous abortions in relation to their age and the number of abortions [1].

### MATERIAL AND METHODS

For our research, we used the data of women registered with spontaneous abortion and undeveloped fetus in the gynecology department of Andijan regional perinatal center. Women were included in the study based on their consent. The search included diagnoses of all hospitalized patients between 2022 and 2024 and analyzed all reproductive outcomes. Reproductive outcome was studied in cases of spontaneous abortion, including embryonic loss and stillbirth. The gestation period of pregnancy was taken up to 8 weeks.

### RESULT

A total of 634 women had 879 pregnancies, of which 493 had an obstetric anamnesis with fetal death. The overall risk of fetal death was 73.5%. According to the age of the mother during pregnancy, the risk of fetal death increased sharply after the age of 35. More than one-fifth of all pregnancies in women aged 35 resulted in fetal loss, and more than half (54.5%) of intended pregnancies resulted in fetal death in the early embryonic period.

Spontaneous abortion accounted for 80% of total fetal deaths. The overall risk of spontaneous abortion is 42.9% for all pregnancies. The risk of spontaneous abortion is at least 8.7% at age 22 and varies according to the number of stillbirths.

The association between spontaneous abortion and age was similar in all strata, although the degree varied with the number of previous spontaneous abortions. The incidence of

spontaneous abortion varied depending on the parity of the woman and the number of spontaneous abortions in the last 10 years. According to the number of fetal deaths, the incidence of single spontaneous abortion and embryonic abortion was 12.4% and 11.8%, the incidence of double abortion was 22.7%, and three and more spontaneous abortions were 17.7% of those with a history of spontaneous abortion. occurs. After three or more spontaneous abortions, 44.6% of women's pregnancies ended in spontaneous abortion.

If it is assumed that only 80% of women who have lost a fetus during a recognized pregnancy are admitted to the hospital, the risk of spontaneous abortion has the following indicator: 13.3%; 20-24, 11.1%; 25-29, 11.9%; 30-34, 15.0%; 35-39.

According to the results, spontaneous abortion accounts for 80% of fetal losses. The total risk of spontaneous abortion was 10.9%. The risk of spontaneous abortion ranged from a minimum of 8.7% at age 22 to 84.1% at age 48 and older. When the numbers were adjusted for Spanish abortion frequency, the risk in women aged 30-35 was partially similar to that of women in their 20s.

The overall risk of spontaneous abortion in hospitalized patients increased from 9.3% to 11.1% between 2020 and 2024. However, the relationship between maternal age and the risk of spontaneous abortion did not change, but with an increase in the number of spontaneous abortions, each future pregnancy was characterized by an increased risk of failure.

The association between spontaneous abortion and maternal age was similar in all strata, and this level increased further as the number of subsequent spontaneous abortions increased. The incidence of spontaneous abortion varied according to the woman's parity and the number of spontaneous abortions in the previous 10 years; Among women aged 25-29, 8.9% of women who had a spontaneous abortion and 9.3% of women without a history of spontaneous abortion, 12.4% of women who had a single spontaneous abortion and 17% of women with a history of 2 spontaneous abortions. .7% were found.

Our study shows that the risk of fetal loss increases with increasing maternal age in women over 30 years of age. In all these women, more than half of the pregnancies ended in spontaneous abortion. Increased risk of spontaneous abortion, parity, number of previous spontaneous abortions in women of all childbearing years. Thus, although maternal age was highly associated with parity and reproductive history, our data did not clearly demonstrate a strong and independent effect of maternal age on the risk of spontaneous abortion. But the high number of spontaneous abortions indicates the failure of future pregnancies.

## METHODOLOGY

The estimated risk of single fetal death may be somewhat uncertain as the subsequent spontaneous abortion resulted in twin fetal death. Such cases are wrongly considered to outnumber spontaneous abortions to one. This bias, especially in women in their 20s, is considered to increase the number of abortions.

## SUMMARY

Our research shows that the number of spontaneous abortions and other types of fetal loss increases significantly in women over 35 years of age, and this increase becomes more pronounced in women over 25 years of age. This increase is observed regardless of a woman's

reproductive and obstetric anamnesis. Such conditions show an increased tendency for late childbearing, the overall incidence of fetal death, and possibly increased health care costs. At the individual level, information about the increased risk of spontaneous abortion and/or embryonic loss with increasing maternal age may be part of medical counseling for reproductive decision-making.

## REFERENCES

1. Sanderam S, Kissin DM, Crawford SB, Folger SG, Jamieson DJ, Warner L. i dr. Monitoring of assisted reproductive technologies — SShA, 2012. *MMWR Surveill Summ* (2015) 64(6):1–29. doi: 10.15585/ss6410a1.
2. Kolte AM, Bernardi LA, Christiansen OB, Quenby S, Farquharson RG, Goddijn MD. Terminology poteri beremennosti do jiznesposobnosti: consensus statement of special group po early pregnancy ESHRE. *Hum Reprod (Oxford Engl)* (2015) 30(3):495–8. doi: 10.1093/humrep/deu299.
3. Gallos I.D., Khairy M., Chu DJ, Radjkhowa M., Tobias A., Campbell A. i dr. Optimal fibrous endometrium for maximizing fertility and minimizing post-term pregnancy: analysis of 25,767 transfers of fresh embryos. *Reprod BioMed Online* (2018) 37(5):542–8. doi: 10.1016/j.rbmo.2018.08.025
4. Mikwar M., McFarlane A.DJ., Marchetti F. The mechanism of aneuploidy of oocytes, connected with the age-related matter. *Mutat Res* (2020) 785:108320. doi: 10.1016/j.mrrev.2020.108320.
5. Provost MP, Acharya KS, Acharya CR, Yeh JS, Steward RG, Eaton JL. i dr. Rezultati beremennosti ukhudshayutsya s uvelicheniem indexa massy tela: analiz 239 127 svezhix autologichnyx tsiklov ekstrakorporalnogo oplodotvoreniya iz reestra Obshchestva vspomogatelnyx reproducivonnyx tekhnologiy za 2008–2010 gg. *Fertil Steril* (2016) 105(3):663–9. doi: 10.1016/j.fertnstert.2015.11.008.
6. Haadsma ML, Groen H, Muidge TM, Burger KV, Brookmans FJ, Lambalk SB. i dr. Risk vykidysha pri EKO-premennosti u ginseng, poorly reacting to hyperstimulation and testicles. *Reprod BioMed Online* (2010) 20(2):191–200. doi: 10.1016/j.rbmo.2009.11.005.