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JOURNAL	World Science
p-ISSN	2413-1032
e-ISSN	2414-6404
PUBLISHER	RS Global Sp. z O.O., Poland
ARTICLE TITLE	REPRODUCTIVE STATUS OF WOMEN OF ADVANCED MATERNAL AGE
AUTHOR(S)	Orenchuk I. V., Boichuk O. H.
ARTICLE INFO	Orenchuk I. V., Boichuk O. H. (2021) Reproductive Status of Women of Advanced Maternal Age. World Science. 11(72). doi: 10.31435/rsglobal_ws/30122021/7728
DOI	https://doi.org/10.31435/rsglobal_ws/30122021/7728
RECEIVED	28 October 2021
ACCEPTED	17 December 2021
PUBLISHED	21 December 2021
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REPRODUCTIVE STATUS OF WOMEN OF ADVANCED MATERNAL AGE

Orenchuk I. V., postgraduate student at the Subdepartment of Obstetrics and Gynecology of the Department of Postgraduate Studies of Ivano-Frankivsk National Medical University

ORCID ID: <https://orcid.org/0000-0002-3693-5671>

Boichuk O. H., MD, professor at the Subdepartment of Obstetrics and Gynecology of Ivano-Frankivsk National Medical University, ORCID ID: <https://orcid.org/0000-0003-4439-3099>

DOI: https://doi.org/10.31435/rsglobal_ws/30122021/7728

ARTICLE INFO

Received: 28 October 2021

Accepted: 17 December 2021

Published: 21 December 2021

KEYWORDS

women of advanced maternal age, infertility, medical and social characteristics.

ABSTRACT

The purpose of the study: to study, evaluate and comparative analysis of the causes of reproductive health disorders, to identify socio-hygienic characteristics of women of late reproductive age with infertility.

Materials and methods. The study was performed continuously, included 1297 women who underwent infertility treatment by in vitro fertilization from 2019 to 2021. at the state IVF center. Of these, the basic group - 530 women of late reproductive age (35-49 years), average age - 37.01 + 2.02 years. The comparison group included 767 women with infertility aged 20-35 years, average age - 30 + 2.79 years. The medical status of patients was assessed according to a comprehensive objective examination. Social status - based on the results of the survey.

Results. We have found significant differences in the causes of infertility in women of advanced maternal age (from 35 to 49 years) in comparison with infertile women age below 35 years. The predominant causes of infertility in the basic group are the combined factor (42%), multiple female factors (20%) and reduced ovarian reserve (17%). A significantly smaller percentage of women presented the absolute tubal factor (6%) or no gynecological pathology but isolated male factor infertility (9%). The comparative analysis of the social status of the women from the basic and the reference group has found no fundamental differences.

Conclusions. Significant differences in the causes of infertility in women of advanced maternal age, the frequency of labors, the assessment of the social situation of infertile women of advanced maternal age are the basis for the development of ways of optimization of the specialized medical assistance for infertile couples and the improvement of the efficiency of treatment.

Citation: Orenchuk I. V., Boichuk O. H. (2021) Reproductive Status of Women of Advanced Maternal Age. *World Science*. 11(72). doi: [10.31435/rsglobal_ws/30122021/7728](https://doi.org/10.31435/rsglobal_ws/30122021/7728)

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Women's reproductive health is of crucial importance for the well-being of women themselves, their families and humanity as a whole. Nowadays, it is the medicosocial significance of infertility that comes to the forefront, and its spread due to changes in the reproductive behavior and low birth rates [1, 2, 3, 4]. Infertility often goes together with psychological issues, disturbance of sexual relations, social adaptation, decreased quality of life [5, 6, 7, 8]. In Ukraine, infertility is in one of the top 4 priority issues of reproductive health. In some Ukrainian regions, infertility rate ranges from 10 to 15% and may reach up to 20% [9, 10, 11, 12]. The reproductive status of women is currently characterized by the fact that maternity is postponed to the moment when a family as a whole and a woman in particular have reached an acceptable material and social status. More and more women become mothers in advanced maternal age (above 35 years) [13, 14].

The reproductive period, i.e. the age at which a woman is capable of childbearing, is determined individually, this period begins with the onset of the first menstruation and ends with menopause. Most women reach menopause before the age of 50, but biological fertility begins to decline 10-12 years before this stage. Modern women postpone the implementation of their reproductive function to a later date. The average age of women who apply to family planning centers for infertility has increased significantly in recent years [15, 16].

Nowadays, the trend towards later maternity is observed more and more often in the developed countries. The natural processes of aging of the endocrine system and the organs participating in conception and gestation are of primary significance. At the same time, the accomplishments in the contemporary technologies make it possible for women of advanced maternal age to fulfill their dream of maternity by means of extracorporeal fertilization.

Therefore, one should monitor women's health, detect gynecological and extragenital pathologies to treat them as early as possible, identify the key risk factors for reproductive health [17, 18, 19].

The purpose of the study: to study, evaluate and comparative analysis of the causes of reproductive health disorders, to identify socio-hygienic characteristics of women of late reproductive age with infertility.

Materials and methods. The study was performed continuously, included 1297 women who underwent infertility treatment by in vitro fertilization from 2019 to 2021. at the state IVF center. The women were divided into two groups: the basic group of 530 women of advanced maternal age (from 35 to 49 years, average age 37.01 + 2.02 years, percentage of primary infertility 41% (219), average duration of infertility 7.9+4.9 years) and the reference group of 767 infertile women aged between 20 and 35 (average age 30 + 2.79 years, percentage of primary infertility 62.5% (480), average duration of infertility 5.2 + 3.35 years). The patients' medical status was assessed on the basis of the data of a complex objective examination: consultations with specialists, instrumental and laboratory examinations. The assessment of gynecological morbidity included the general morbidity level, the structure of morbidity, the remoteness or duration of a pathological process, the combination of pathologies and the peculiarities of women's chronic morbidity. The patients' social status was assessed on the basis of the results of questionnaires and interviewing of women.

Research results.

The results of this study suggest that there are significant differences in causes of infertility in women of late reproductive age (35 - 49 years) compared with women of reproductive age with infertility up to 35 years. The predominant cause of infertility in the basic group is the combined factor - 42% (35% in the reference group) ($x^2 = 6.38$, $p < 0.05$), the second most frequent cause is multiple female factors (20%) (7% in the reference group) ($x^2 = 45.05$, $p < 0.01$), the third one – reduced ovarian reserve (17%) (0% in the reference group) ($p < 0.001$). A significantly smaller percentage of women of advanced maternal age presented the absolute tubal factor (6%) (26% in the reference group) ($x^2 = 82.97$, $p < 0.001$) or no gynecological pathology but isolated male factor infertility (9%) (21% in the reference group) ($x^2 = 33.01$, $p < 0.01$). No significant differences between the groups have been found in such causes of infertility as endometriosis, ovulatory dysfunction, infertility of uncertain genesis ($p > 0.05$).

Regarding secondary infertility - low spontaneous aggression was observed 1.8 times more often, low shyness - 6.1 times more often, high openness - 1.8 times less often, high emotional lability - 2.4 times less often than in primary infertility. Patients with secondary infertility who have children are 3.4 times less likely to have high sociability, 3.1 times more likely to have high neuroticism, 1.4 times less likely to have low spontaneous aggression, and 4.3 times less likely to have low extraversion. compared with infertile women who do not have children. Severe depression is found in every fourth fertile patient and only in isolated cases of infertility. It is concluded that infertile women of late reproductive age with endometrial pathology are much less likely to be depressed and more likely to have such personality traits as sociability, extraversion and masculinity; patients with primary infertility are more prone to spontaneous aggression, shyness, emotional lability compared to secondary infertility; dysfunctional personality traits are least common in patients with secondary infertility; the personality profile of secondary infertile women who have children is close to the personality profile of fertile patients of late reproductive age with endometrial pathology.

There are many factors responsible for lower birth rates in women of late reproductive age. These include age-related ovarian aging, ie natural processes of atresia and decreased ovulatory reserve, and factors related to the reproductive organs (uterus, ovaries) and general health. The main

consequences of "aging" of egg cells are low levels of fertilization, poor embryonic development, increased likelihood of miscarriage and the development of hereditary pathologies of the fetus. For example, trisomy is observed in almost 35% of all clinically recognized pregnancies in women over 40 years of age, but only in 2-3% of all clinically recognized pregnancies.

Late motherhood is relevant today and will remain relevant in the future. One way to solve this problem is to cryopreserve your own eggs. Even now, young women in many countries around the world who are not planning a pregnancy at this stage of their lives are increasingly interested in the possibility of cryopreservation, i.e. "freezing" of their genetic material. "Deferred motherhood" allows women to become mothers without the risk of losing their reproductive potential with age.

Conclusions. The problem of infertility among women of late reproductive age remains relevant. The number of women of advanced maternal age wishing to have children is growing from year to year. Special differences in the causes of infertility in women of advanced maternal age, the assessment of the social situation of infertile women of advanced maternal age are the basis for the development of ways of optimization of the specialized medical assistance for infertile couples and the improvement of the efficiency of treatment.

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