

Women infertility- statistical analysis data in the eastern region of Republic of N. Macedonia

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Abstract

Infertility has been on the rise in recent years and is one of the significant problems of today's lifestyle. There are many causes of infertility, and they can be the result of disorders in only one or both partners. Female infertility is one of the reasons for the absence of pregnancy in 35-50% of couples, male infertility in 40-50% of couples, while in about 30% of couples the causes of infertility are mutual. Sterility or infertility according to the World Health Organization (WHO) is defined as a disease of the reproductive system, due to the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected intercourse. There are two types of infertility - primary and secondary. The main goal of this paper is to determine the increasing prevalence of sterility in the eastern region of N. Macedonia, as well as the reasons for it. Data obtained from the departments of gynecology and obstetrics in the eastern region of N. Macedonia were used for the preparation of this paper, i.e. the cities of Shtip, Kočani, Vinica and St. Nikole were included. A total of 92 respondents participated in the research. The youngest respondent was 26 years old, and the oldest was 41 years old. Out of 92 respondents, 58 (63%) had no previous pregnancy, and 34 (37%) had.

Key words: women, infertility, statistics

Introduction

Today in the world there are a large number of couples who in various ways try to limit their fertility and thus prevent the arrival of a new life, while a certain number of them struggle with another problem and try in every possible way to have their own a child. The pressure of society, but above all the married couples' own wishes as well as the optimism from the health-technical side and the achievements of reproductive medicine motivate them to new attempts.

Sterility or infertility according to the World Health Organization (WHO) is defined as a disease of the reproductive system, due to the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected intercourse. We distinguish between primary and secondary infertility. Primary infertility is the inability to conceive without a previous pregnancy, while secondary infertility is diagnosed as the inability to conceive after at least one previous pregnancy. Infertility affects around 10-15% of couples of reproductive age. Subfertility is a state of reduced fertility. Although subfertile couples are characterized by reduced reproductive efficiency, they can achieve pregnancy, it just takes longer than the average couple. The probability of pregnancy in one menstrual cycle is called fecundability and is 20-25% in the case of a healthy couple. Fecundity means the ability to produce a live newborn from one menstrual cycle. Of those who did not conceive during that period, approximately 50% of couples will conceive spontaneously within the next 36 months. If pregnancy does not occur by that time, the infertility will likely last until medical intervention. [1]

Infertility in women can be caused by many medical reasons that can lead to injury of the fallopian tubes and interference with ovulation or also hormonal factors. The impossibility or difficulty of conceiving is a physical and psychological painful condition in a woman's life. The causes of female infertility are divided into several groups, so the cause of infertility can be ovarian, cervical, uterine, tubal or peritoneal factors. Anovulation is likely the most common cause of infertility. Anovulation can be the result of various disorders, and the most common cause of the absence of ovulation is polycystic ovary syndrome (PCOS), a disorder characterized by oligomenorrhea and hyperandrogenism. Polycystic ovary syndrome (PCOS) is the most common endocrine disorder affecting women of reproductive age and is closely associated with insulin resistance, metabolic syndrome, and future risk of developing diabetes and cardiovascular disease. [2]

Eating disorders, excessive exercise and emotional stress are the cause of functional hypothalamic anovulation. Anovulation also develops as a result of premature ovarian failure, an irreversible disorder in women under 40 years of age. The cause of premature ovarian failure can be related to autoimmune disorders, genetic disorders such as Turner syndrome, and iatrogenic damage to the ovaries as a result of surgery, radiotherapy, or chemotherapy. [3]

Endometriosis is a peritoneal factor for infertility. It affects a woman's fertility by creating adhesions and disrupting the anatomical relationships of the pelvic organs. It can also damage ovarian and uterine function. [4]

Both hypothyroidism and hyperthyroidism can result in menstrual disturbances. The most common sign is simple oligomenorrhea (reduced menstrual flow). Anovulatory cycles are very common. Increased bleeding may occur but it is a rare manifestation in hyperthyroidism. The thyroid gland is an important endocrine gland and its dysfunctions interfere with numerous aspects of reproduction and pregnancy. In women of reproductive age, thyroid dysfunction can lead to a variety of gynecological disorders, ranging from menstrual irregularities to infertility resulting from many different

pathophysiological mechanisms. Hypothyroidism is main cause of difficulty achieving and maintaining full pregnancy. Low thyroid function is impacting the reproductive health very negatively and is more common than most women realize. It is also associated with menstrual problems and lack of ovulation in some cases. Hypothyroidism may occur spontaneously, develop after or during the pregnancy or after hyperthyroidism treatment. [5]

Material and methods

The main goal of this paper is to determine the increasing prevalence of sterility in the eastern region of N.Macedonia, as well as the reasons for it. Data obtained from the departments of gynecology and obstetrics in the eastern region of N. Macedonia were used for the preparation of this paper, i.e. the cities of Shtip, Kočani, Vinica and St. Nikole were included.

The research mainly covers female patients, i.e. women who cannot get pregnant for more than a year and come for treatment at the Department of Gynecology and Obstetrics in the eastern regions of N. Macedonia.

A total of 92 respondents participated in the research. The youngest respondent was 26 years old, and the oldest was 41 years old. The figure below shows the age distribution of the respondents.

Result and Discussion

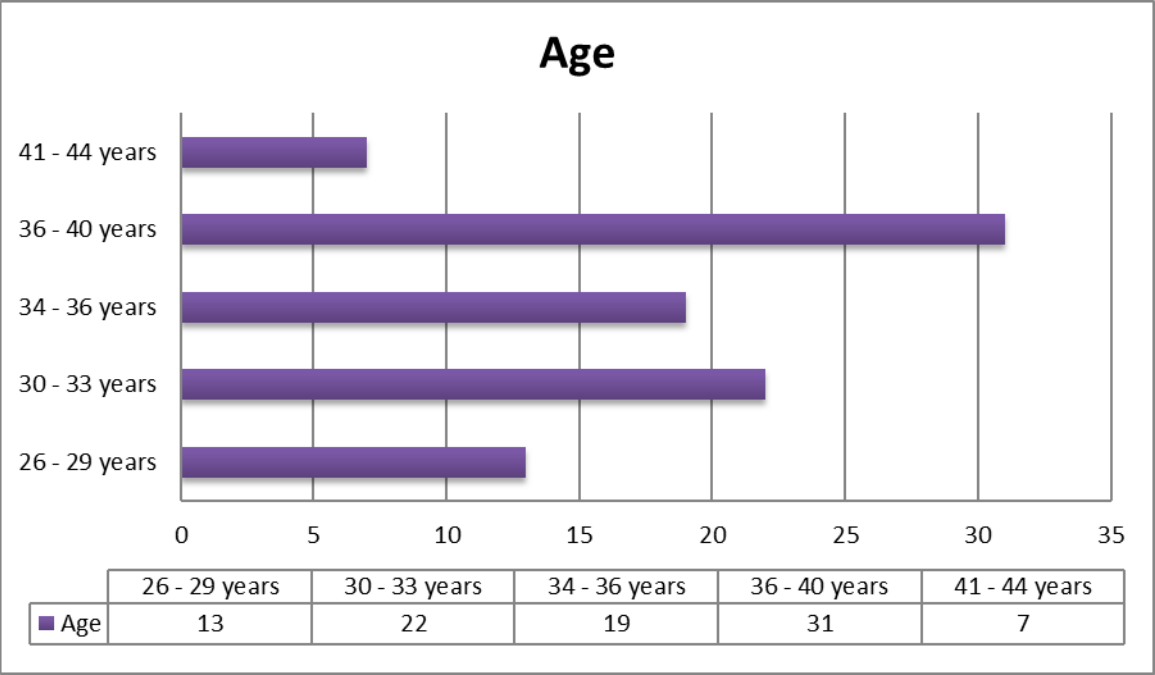


Chart 1. Age of respondents

Out of 92 respondents, 58 (63%) had no previous pregnancy, and 34 (37%) had. The results are shown in chart no. 2



Chart 2. Presentation of the presence of a previous pregnancy among the respondents

The majority of respondents had no previous childbirth, ie 63 (68%) of them, and 29 (32%) had a previous childbirth. The results are shown in chart no. 3



Chart 3. Presentation of the respondents' previous childbirth

The largest number of patients being treated for sterility are from Shtip, ie 39 of them, followed by 21 patients from Kočani, 14 from Vinica and 18 from St. Nikole.

City	Number of patients
Shtip	39
Kochani	21
Vinica	14
Sveti Nikole	18

Table 1. Tabular representation of the place of origin of the patients who are treated for sterility.

Chart 4 shows the frequency of causes of female infertility. PCOS is the cause of anovulation and therefore infertility in 33 women. 16 women suffered from thyroid disorders. In 8 women, the cause of infertility was anovulation. 21 of the women had endometriosis, and 14 of them had fibroids.

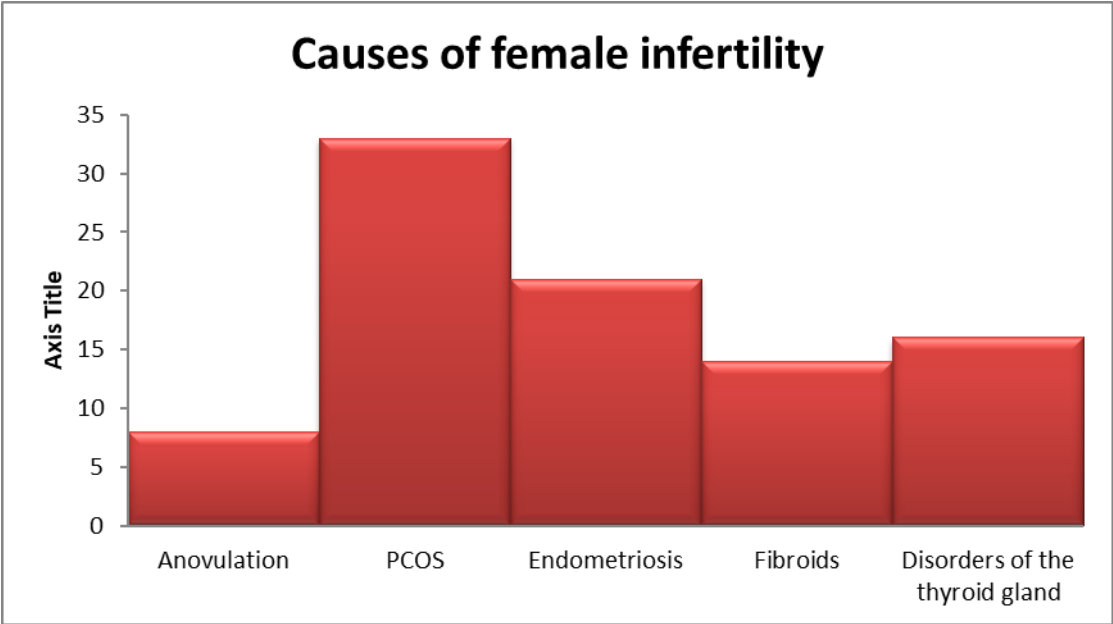


Chart 4. Causes of female infertility

Conclusion

In recent years, infertility in women and men has been on the rise. Declining fertility can largely be attributed to today's lifestyles, which include an increasingly later age at which partners decide to have offspring. The age after which fertility rapidly decreases is about 35 years. Sterility can be the result of female, male or a common factor, but the cause can also remain undetected. This research aims to contribute to a better insight into the quality of life of women who are struggling with infertility and in this way to see in which direction it is necessary to influence the improvement of the perception of the impaired quality of life of women who are facing the diagnosis of infertility.

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