

INVENTION OF OVARIAN CANCER IN NIŠAV DISTRICT

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Summary : Introduction : Ovarian cancer is the eighth most common malignant disease in women in the world, accounting for 3.4% of all malignant tumors in women. It has the highest lethality among gynecological malignancies. The aim of this paper was to analyze the incidence of this malignancy in the Nisava district in the period 1999-2018. years. Material and method: Descriptive method applied. The population registry for cancer of the Institute of Public Health in Nis was the source of the data. Raw and standardized incidence rates per 100,000 women were calculated. Standardization was performed by the direct method. The linear trend of the incidence rate was calculated. Results: In the structure of malignant diseases in women, ovarian cancer accounts for 5%. The average annual standardized incidence rate is 13.5. In the observed twenty-year period, an increase in the linear trend of incidence rates is registered. The highest standardized rate was recorded in 2016 (20.4), and the lowest in 2002 (10.1). The disease is not registered under the age of fifteen, and is most common in the age group of 70-74. There is a statistically significant increase in the trend of standardized incidence rates with age. The highest standardized incidence rate is recorded in the municipality of Svrlijig (18.5) and the lowest in the municipality of Merošina (7.2). Conclusion: The registration of an unfavorable trend in the incidence of ovarian cancer indicates a lack of adequate primary and secondary prevention. It is necessary to effectively implement preventive measures and education of women in order to reduce risk factors and early detection of the disease.

Key words : ovarian cancer, epidemiology, incidence

INTRODUCTION:

Ovarian cancer is the eighth most common malignant disease in women in the world, with 295,414 new cases and a standardized incidence rate of 6.6 / 100,000. It accounts for 3.4% of all malignant tumors in women [1]. The absence of early and specific symptoms, underdeveloped screening techniques and early detection of initial stages of the disease, as well as the lack of categorization of high-risk groups, are important reasons for diagnosing advanced ovarian cancer, with a five-year survival of only 29%. Only 15% are diagnosed in stage I (localized tumor) with a five-year survival rate of 92% [2]. The risk of lifelong illness is 1:75 women. The disease has the highest lethality among gynecological malignancies [3].

There is a disparity in the incidence of this malignancy in the world. The highest incidence rates are in Central and Eastern Europe (10.7), Northern Europe (8.8) in Polynesia (8.8), North America (8.1), Southeast Asia (8.1) and Southern Europe. (8.0). The lowest rates are recorded in Central Africa (4.7), the Caribbean (4.6), South (4.9), East (5.5) and West (5.6) Africa, as well as East Asia. (5.7), and North Africa (5.7) [1].

Understanding the etiology of the disease and identifying risk factors, as well as the population at increased risk, is extremely important for the prevention of ovarian cancer [4].

The aim of this paper was to analyze the incidence of this malignancy in the Nisava district in the period 1999-2018.

MATERIAL AND METHOD:

A descriptive method was applied. The population registry for cancer of the Institute of Public Health in Nis was the source of the data. Raw and standardized incidence rates per 100,000 women were calculated. Standardization was performed by the direct method. The linear trend of the incidence rate was calculated.

RESULTS:

In the structure of malignant diseases in women, ovarian cancer accounts for 5%. The average annual standardized incidence rate is 13.5. In the observed twenty-year period, an increase in the linear trend of incidence rates is registered. The highest standardized rate was recorded in 2016 (20.4), and the lowest in 2002 (10.1). The disease is not registered under the age of fifteen, and is most common in the age group of 70-74. There is a statistically significant increase in the trend of standardized incidence rates with age. The highest standardized incidence rate is recorded in the municipality of Svrlijig (18.5) and the lowest in the municipality of Merošina (7.2).

DISCUSSION

Ovarian cancer is the seventh most common cancer in women in the Nisava district, after breast cancer, cervical cancer, non-melanoma skin cancer, lung, trachea and bronchial cancer, uterus and colon cancer. In the period 1999-2013. Ovarian cancer is the sixth most common cancer in women in central Serbia [5].

In the observed period, the average annual standardized incidence rate is higher in the Nisava district compared to the rate in central Serbia [5]. According to published data [1], Serbia has the highest standardized incidence rate (16.6), while lower rates are recorded by Hungary (13.2), Croatia (12.1), Bulgaria (10.9), Bosnia and Herzegovina (10.5), Romania (10.4) and the lowest Japan (9.5).

Similar to our results, there is an upward trend in incidence rates in Serbia [5]. Also, the incidence increases with age and is highest in the age of 40-74. years [6]. Population aging and high prevalence of risk factors may be significant in explaining the increasing trend in ovarian cancer incidence [4,5]. Changes in diagnostic procedures and classification are also important for the increase in the incidence of the disease, primarily in developed countries [7].

Differences in incidence rates in Nisava District municipalities may indicate that women from urban areas who are more educated and have access to health care are more likely to visit a gynecologist than women from suburban and rural areas, poorer resources and lower levels of education [8,9]. Significant under-registration of new cases should also be taken into account, especially in smaller municipalities.

Ovarian cancer is a multicausal disease. The etiology of the disease has not yet been fully elucidated. There are many risk factors that are the subject of research: demographic (age), reproductive (age of menarche and menopause, age at birth, pregnancy), gynecological (pelvic inflammation, endometriosis), hormonal (hormonal contraception and therapy), genetic (family history, BRCA mutations), habits (diet, physical activity, obesity, alcohol consumption, coffee and cigarette smoking), as well as breastfeeding and lower socioeconomic status [10].

Genetic and environmental factors, as well as habits, are among the important factors that can influence the incidence of the disease [10].

The results of the research indicate that a positive family history is an important factor; relatives in the first degree of kinship have a 3-7 times higher risk of getting sick, especially in the case of a larger number of relatives at a younger age [11,12].

Studies have shown that many factors can significantly reduce the risk of developing the disease: pregnancy reduces the risk (per child RR = 0.90) [13], longer breastfeeding (reduces the risk by 22%) [14], and the use of oral contraceptives decreases by 20 % every 5 years of use, persisting for more than 30 years after cessation of use) [15,16].

Also, studies indicate that some factors may increase the risk of developing the disease: cigarette smoking (6%) [17], obesity (28%) [18], use of hormone therapy (37%) [19], as well as consumption red meat and meat products (19%) [20].

It has been observed that the migration of women from low-incidence countries to high-incidence countries increases the risk of developing the disease, indicating the importance of non-genetic risk factors [21].

CONCLUSION:

The registration of an unfavorable trend in the incidence of ovarian cancer indicates a lack of adequate primary and secondary prevention. It is necessary to effectively implement preventive measures and education of women in order to reduce risk factors and early detection of the disease. Modification of

risk factors that can be influenced, with the adoption of healthy lifestyles and elimination of harmful habits, is crucial in disease prevention.

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