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REVIEW PAPER

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Epidemiology of breast cancer in Podkapackie voivodship

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ABSTRACT

Introduction. Breast cancer is the second most prevalent reason for cancer deaths after lung cancer. Incidence rates have increased worldwide.

Aim. To present epidemiology of breast cancer in Podkapackie voivodship.

Material and methods. This analysis was performed using a systematic literature search.

Results. In the Podkarpackie voivodship up until 2014, the incidence rate of female breast cancer was rising and in 2015 it dropped by 68 cases. Even though the survival rate is increasing, it is still one of the leading causes of cancer deaths placing second after lung cancer.

Conclusion. Mortality rate, unfortunately, rose gradually. This shows that even though there is a National Health Program aiming at breast cancer awareness and prevention, it is still not enough to reduce the number of breast cancer deaths.

Keywords. breast cancer, statistics, epidemiology, Podkarpackie voivodship

Introduction

Breast cancer is a very serious problem all over the world. Most frightening is the fact that many deaths could have been avoided had the women been regularly screened. Many factors can contribute to the development of this malignancy, both modifiable and unmodifiable. Genetic factors that are responsible for approximately 10% of cases.[1-21] In the Podkarpackie voivodship during 2011-2014, there was an increase in breast cancer incidence as well as mortality. In 2015, however, the number of new cases dropped by 68. Most patients diagnosed with breast cancer were between 50 and 69 years old but the highest mortality rate was among women over 70. Breast cancer is the most common malignancy diagnosed in

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women.[1-41] In this paper, we decided to present the incidence rate and mortality rate of breast cancer in the Podkarpackie voivodship between 2011 and 2015. Data that we present was collected by Podkarpackie Cancer Register and published in 2018.

Risk factors

There are many studies concentrating on risk factors of breast cancer due to the fact that it is so common. The scientists want to discover as much as possible about this neoplasm following the rule "know thy enemy" in order to prevent future cases or minimize the probability of development of this malignancy. Less than 10% of breast cancers can be attributed to an inherited genetic mutation. Breast cancer is more commonly associated with environmental, reproductive, and lifestyle factors, some of which are potentially modifiable.[21] Among the risk factors are increasing age, race, menarche history, breast characteristics, reproductive patterns, hormone use, alcohol use, tobacco use, diet, physical activity, and body habitus.[1] The incidence rate rises significantly with age, especially among women who are 50 and older. Long-term estrogen use is associated with a substantially increased risk of breast cancer.[10] A similar situation of increased risk occurs with alcohol and tobacco use. Low physical activity and diet poor in nutrients and rich in saturated fats can also lead to development of breast cancer. Obesity is associated with higher risk of breast cancer as well. [27]

Prevention methods

Prophylaxis is crucial in reducing the incidence rate of breast cancer. Regular check-ups and a healthy lifestyle can help save many lives. Early detection of breast cancer through different imaging methods increases chances of survival.

Breast cancer in Podkarpackie voivodship

According to data published in 2018 by the Podkarpackie Cancer Register, there were 665 new cases of breast cancer in 2011. Throughout the following years, the number of new cases rose to 859 in 2014. Surprisingly in 2015 there were 791 new cases. Figure 1 below shows crude rates of incidence and mortality rates between 2011 and 2015.

Among women with diagnosed breast cancer, the majority were between 50 and 69 years old. The highest mortality rate however, was among women aged 70 or more. This was probably because in those cases, it was more probable that the cancer was in a more advanced stage. Data published by the Podkarpackie Cancer Register shows that in 2011-2014, the number of breast cancer cases increased significantly. In 2015 it dropped by 68 cases. The reason for this is unknown. Maybe not all the incidents were reported by doctors to the Register or perhaps the cancer awareness of women was raised and they became more conscious of their lifestyle and health in general. Mortality rate, on the other hand, is gradually decreasing in some developed countries like the UK and US because of the developed technologies used in diagnosis and awareness. But in developing countries like India the situation is not good and some effective steps should be taken in this direction without any delay.[22]

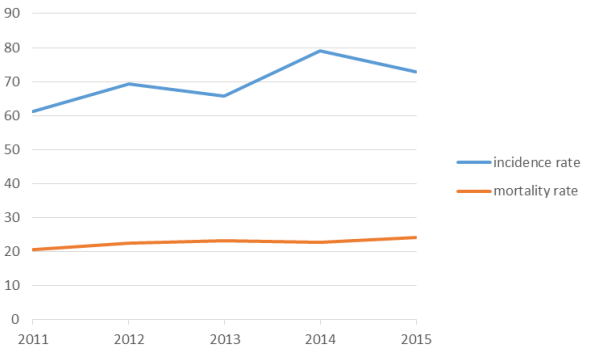

Fig. 1. Breast cancer incidence and mortality rates in Podkarpackie voivodship in 2011-2015, crude rates

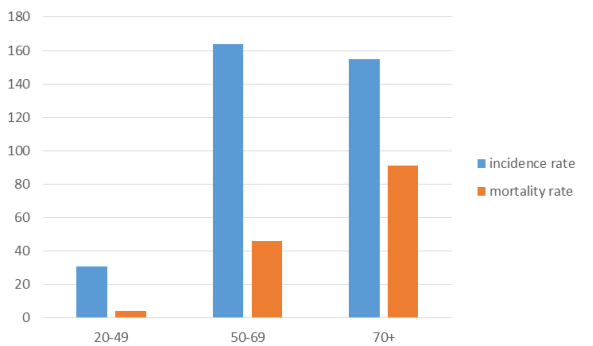

Fig. 2. Incidence and mortality rate of female breast cancer in 2015

Conclusion

In the Podkarpackie voivodship up until 2014, the incidence rate of female breast cancer was rising and in 2015 it dropped by 68 cases. Mortality rate, unfortunately, rose gradually. This shows that even though there is a National Health Program aiming at breast cancer awareness and prevention, it is still not enough to reduce the number of breast cancer deaths.

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