



BREAST CANCER - STATISTICAL DATA FOR PATIENTS WITH BREAST CANCER IN THE PERIOD FROM 2009 TO 2018 IN EASTERN MACEDONIA

Jihe Zhu¹, Blagica Arsovska^{1,2} and Kristina Kozovska^{1,3*}

¹Faculty of Medical Sciences, University Goce Delchev, Shtip, Republic of Macedonia.

²Institute of Biology, Faculty of Natural Sciences and Mathematics, Skopje, Republic of Macedonia.

³Medicine Faculty, St. Cyril and Methodius University of Skopje, Republic of Macedonia.

*Corresponding Author: Kristina Kozovska

Medicine Faculty, St. Cyril and Methodius University of Skopje, Republic of Macedonia.

Article Received on 14/07/2021

Article Revised on 04/08/2021

Article Accepted on 24/08/2021

INTRODUCTION

Breast cancer is the most common malignancy. Globally, it is most common cancer in women, affecting about 10% of the female population at some stage in their lives. In addition to efforts to achieve early detection and effective treatment, about 20% of breast cancer patients die from this disease. We have witnessed a large number of infected women, but what is even more worrying is the fact that these are women from a younger population. The purpose of this research is to get acquainted with this disease which is the most commonly diagnosed malignancy in women, defining the causes that lead to an increasing number of deaths from breast cancer and the role of the doctors in the prevention and early diagnosis of diseases. For this research was used analytical – descriptive method on the data taken from the Center for Public Health – Shtip (Shtip, Probishtip, Radovish) in the period from 2009 to 2018. According to the processed data, there is a growing number of deaths from breast cancer in this modern society. The disease endangers a woman's life which leads to disruption of her femininity, her physical health, her mental health and if not diagnosed in time leads to a fatal outcome. The need to conduct campaigns to raise awareness of women is inevitable, as well the approach of doctors in education, prevention and early diagnosis of this disease.

KEYWORDS: Cancer, breast, women, prevention, diagnostics.

INTRODUCTION

Breast cancer is cancer formed in the breast cells. Breast cancer is the most common malignancy in women, but it can occur less frequently in men. The incidence of breast cancer is increasing in the last decades of life. 75% occur in women over the age of 50, while 50% occur in women over the age of 65. The reason for breast cancer is unknown, but there is a risk factor for its occurrence. When it comes to malignancy in a particular case, breast cancer is known that there are certain risk groups of people who are at higher risk of this disease.

Two different genes responsible for breast cancer have therefore been identified. In women who carry one of these two types of genes, there is a high risk of developing cancer. But if these women develop cancer, the prognosis and the possibility of death are the same as in women who do not carry the gene. These genes that are responsible for the development of breast cancer are called BRCA or Breast cancer gene. It stands for Breast Cancer BRCA1 and BRCA2, two different genes that have been found to play a huge role in the development of breast cancer. These genes play an important role in preventing breast cancer. They help repair DNA changes

that can lead to cancer and uncontrolled tumor growth. They are also known for suppressing tumors or tumor suppressors. In some people, these suppression genes do not work properly. If the BRCA gene is mutated, then the DNA repairing is no longer effective and also in helping prevent breast cancer. People with gene mutations are more likely to develop breast cancer at a younger age. The differences between the two genes are that, BRCA1 - creates a tumor that does not grow under the action of estrogen hormones, while BRCA2 - creates a tumor that needs estrogen hormones to grow.

Breast cancer is inherited or one in 20 cases. About 1 in 1,000 people carries these genes responsible for cancer. Another risk factor is gender. The risk for breast cancer is higher in women than in men. Only 1% of breast cancer cases are associated with men. Age is also another risk factor. Older age is a higher risk factor, as around 60% of breast cancers develop in women over 60 years of age. Women with a long menstrual history or early menarche as well as women who have never given birth or become pregnant after the age of 30 are at risk. In these women the risk of developing breast cancer is 2-3 times higher than in women with a not so long menstrual

history and in women who gave birth before turning 30 years old. Obesity after menopause - is a risk factor for breast cancer, which leads to the secretion of large amounts of estrogen hormones and the presence of these 2 factors (obesity along with increased amounts of estrogen hormones) adversely affect breast tissue. Excessive alcohol consumption can increase the risk of breast cancer. Physical activity and regular exercise reduce the risk of breast cancer.

According to the NCI (National Cancer Institute) the risk in a woman's lifetime of developing breast cancer is 12.8%. The initial stages of cancer usually have no symptoms or completely unnoticeable signs, asymptomatic symptoms. By programming the process itself and the growth of the tumor, the leading symptoms will be noticed. Local symptoms of breast cancer are: palpable colorless lump (knot), although some may cause traction (but not all are carcinogenic), sensitive lump, redness of the skin, nipple changes such as nipple indentation, or wrinkled appearance, itching and burning or pus, nipple peeling should not be neglected, feeling of tightness on the skin of the chest, wart (erosion) of the nipple, chest asymmetry that is recent, change in nipple sensitivity, unusual nipple discharge that may be clear, serous, purulent, milky and bloody or of a different color; unusually persistent chest pain that is not related to a normal regular menstrual cycle, which persists after the cycle and occurs in one breast, visible flatness or depression of the breast, which may indicate a tumor that cannot be palpated.

There might also be present regional and systemic symptoms. Regional symptoms represent when there is a

spread of cancer in regional lymph nodes. Most often it spreads in the armpit. Systemic symptoms occur if there are distant metastases in the body and depending on their location there may be symptoms such as: general weakness and malaise, nausea, vomiting, shortness of breath, suffocation, bone pain, swelling, jaundice, neurological outbursts and others symptoms.

Breast cancer can be diagnosed by mammography, breast echotomography, tumor markers, magnetic resonance imaging (MRI), Immunohistochemistry and biops. After the diagnosis is made, the therapy begins. The therapy can be divided into local or systemic therapy.^[1-8]

MATERIAL AND METHODS

For this research, an analytical-descriptive method of work was applied in collecting and processing data with tabular and graphical presentation of results.

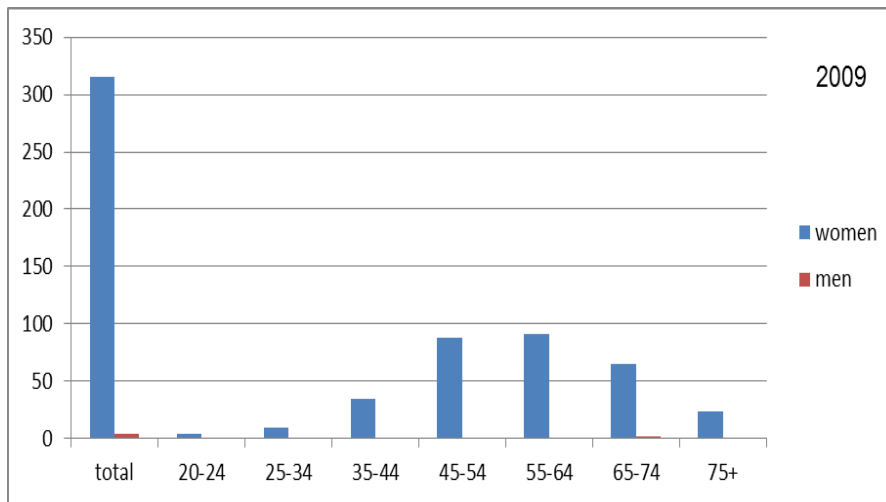
The data was obtained from the Center for public health - municipality Stip, Macedonia for the number of outpatient polyclinic morbidity from breast cancer in the period from 2009 - 2018 in Stip, Probistip and Radovish.

The aim of the research is to better understand the disease, to have a clear view on the statistics on the number of deaths from breast cancer, the age factor, morbidity, to define the causes that lead to an increased number of breast cancer patients, to explain that proper education, regular check-ups and examinations, timely detection of suspicious changes and early treatment are the main factors in reducing morbidity and mortality rates from breast cancer.

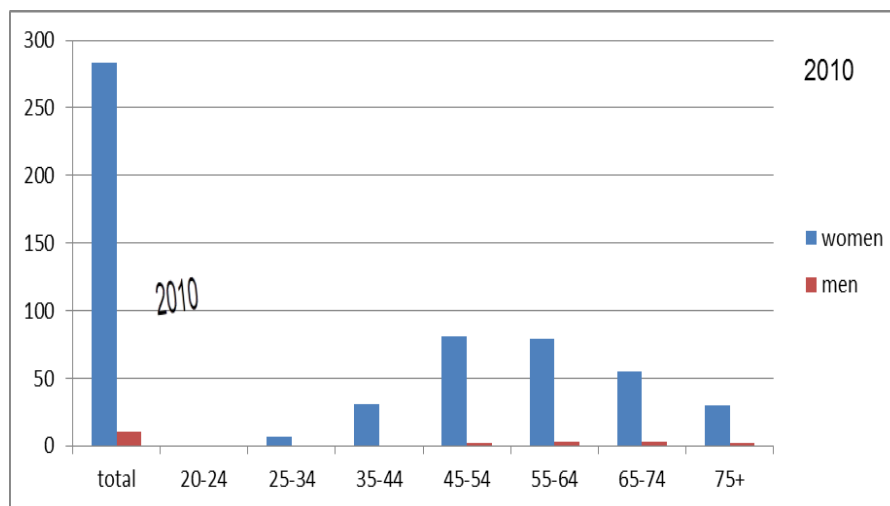
RESULT AND DISCUSSION

Table 1: Statistical data for outpatient polyclinic morbidity 2009-2018 on the territory of the Center for public health Stip (Stip, Probistip, Radovish).

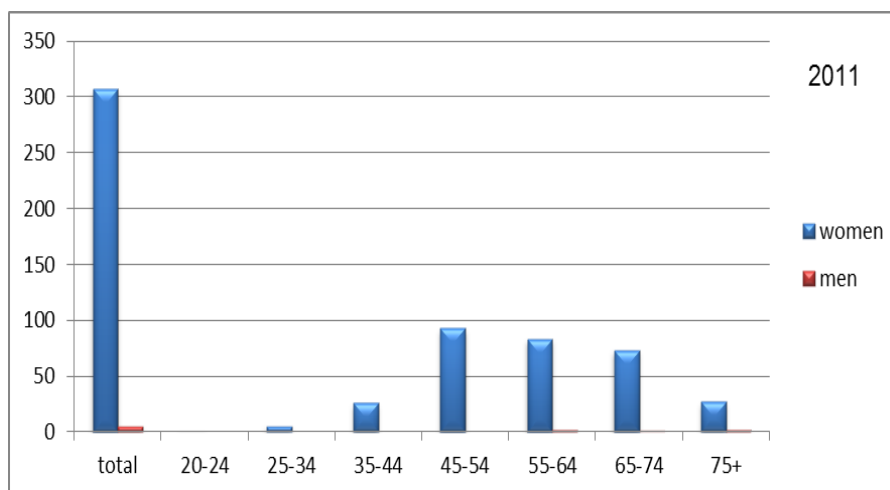
| Year | | 20-24 year | 25-34 year | 35-44 year | 45-54 year | 55-64 year | 65-74 year | 75+ |
|------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|-----|
| 2009 | C50 women | 4 | 9 | 34 | 88 | 91 | 65 | 24 |
| | Men | | | | 1 | 1 | 2 | |
| 2010 | C50 women | 0 | 7 | 31 | 81 | 79 | 55 | 30 |
| | Men | | | | 2 | 3 | 3 | 2 |
| 2011 | C50 women | 0 | 5 | 26 | 93 | 83 | 73 | 27 |
| | Men | | | | | 2 | 1 | 2 |
| 2012 | C50 women | 0 | 6 | 26 | 100 | 90 | 119 | 30 |
| | Men | | | 1 | | 7 | | 1 |
| 2013 | C50 women | 0 | 8 | 29 | 113 | 110 | 155 | 34 |
| | Men | | 1 | | | | 1 | 2 |
| 2014 | C50 women | 0 | 13 | 32 | 98 | 151 | 149 | 38 |
| | Men | | | | 1 | 1 | | 2 |
| 2015 | C50 women | 0 | 1 | 45 | 109 | 124 | 155 | 35 |
| | Men | | | 1 | | 3 | 1 | 4 |
| 2016 | C50 women | 0 | 4 | 38 | 136 | 141 | 157 | 45 |
| | Men | | | | | 1 | 3 | 4 |
| 2017 | C50 women | 0 | 7 | 23 | 74 | 141 | 129 | 42 |
| | Men | | | | 2 | 2 | | |
| 2018 | C50 women | 0 | 7 | 42 | 101 | 127 | 118 | 30 |
| | Men | | | | | | 1 | 3 |



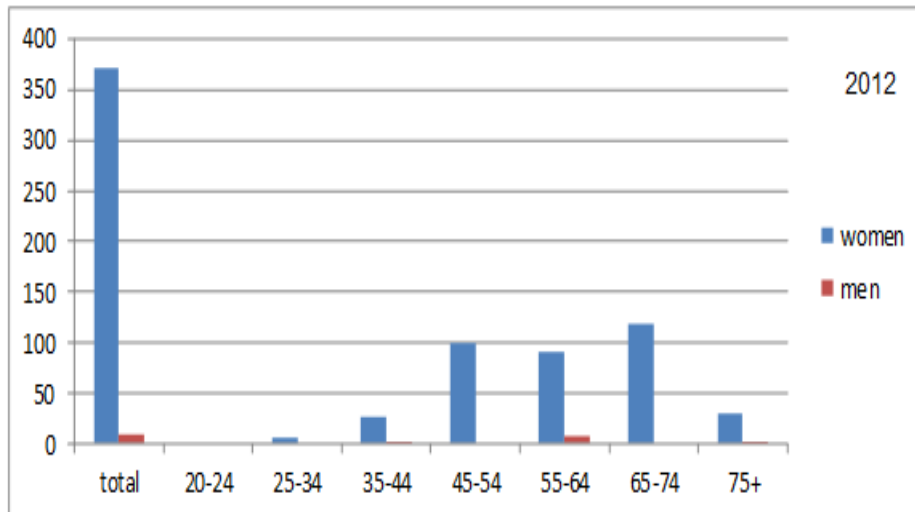
Graphic 1: Malignant breast neoplasma in 2009 year in Stip, Probishtip and Radovish.



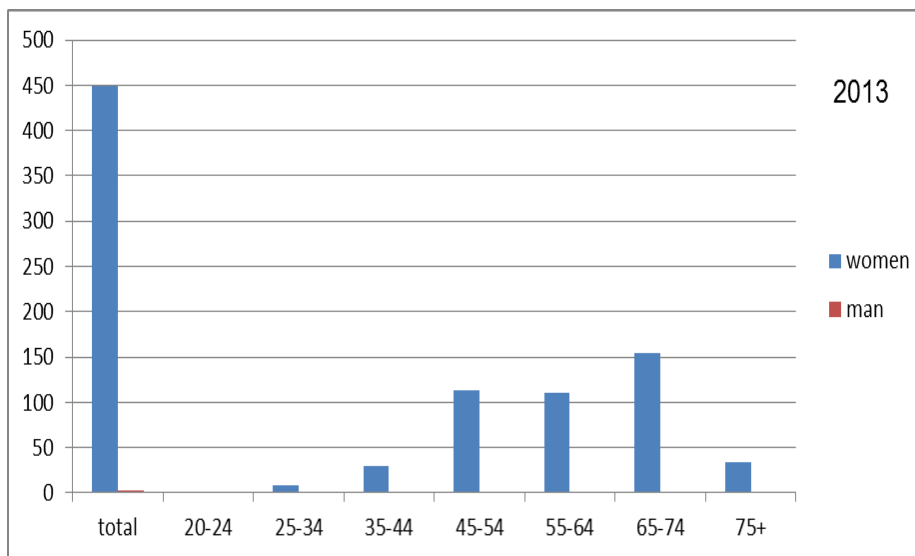
Graphic 2: Malignant breast neoplasma in 2010 year in Stip, Probishtip I Radovish.



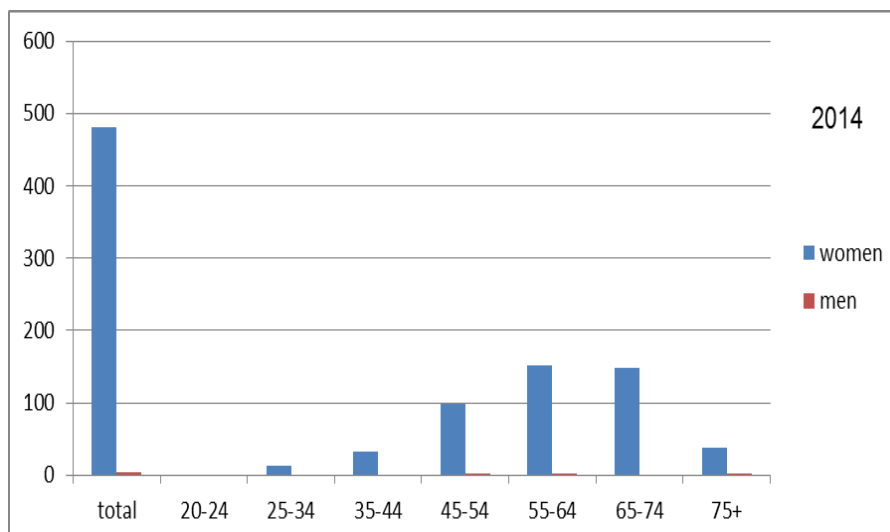
Graphic 3: Malignant breast neoplasma in 2011 year in Stip, Probishtip and Radovish.



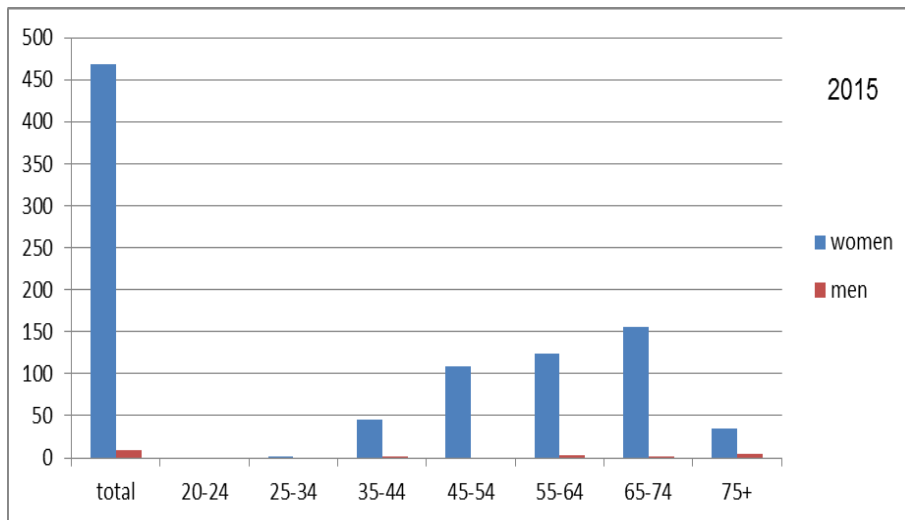
Graphic 4: Malignant breast neoplasia in 2012 year in Stip, Probishtip and Radovich.



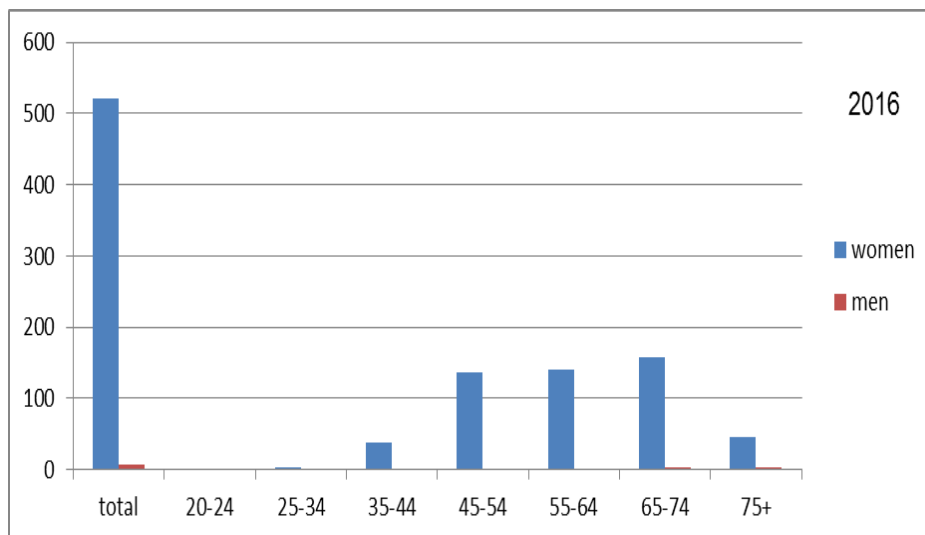
Graphic 5: Malignant breast neoplasia in 2013 year in Stip, Probishtip and Radovich.



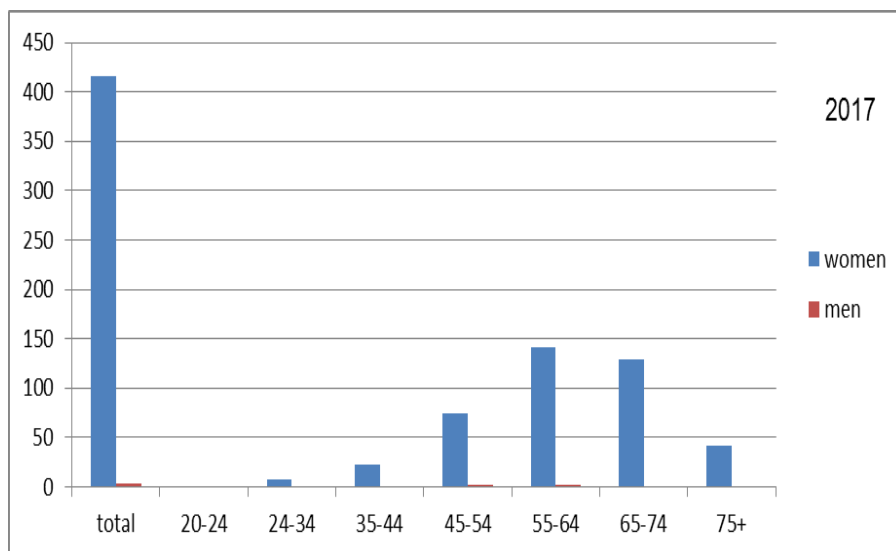
Graphic 6: Malignant breast neoplasia in 2014 year in Stip, Probishtip and Radovich.



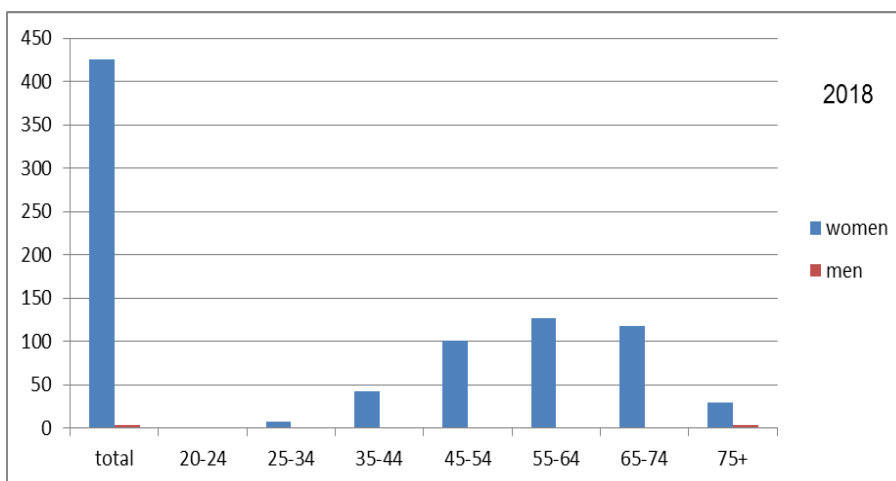
Graphic 7: Malignant breast neoplasia in 2015 year in Stip, Probishtip and Radovish.



Graphic 8: Malignant breast neoplasia in 2016 year in Stip, Probishtip and Radovish.



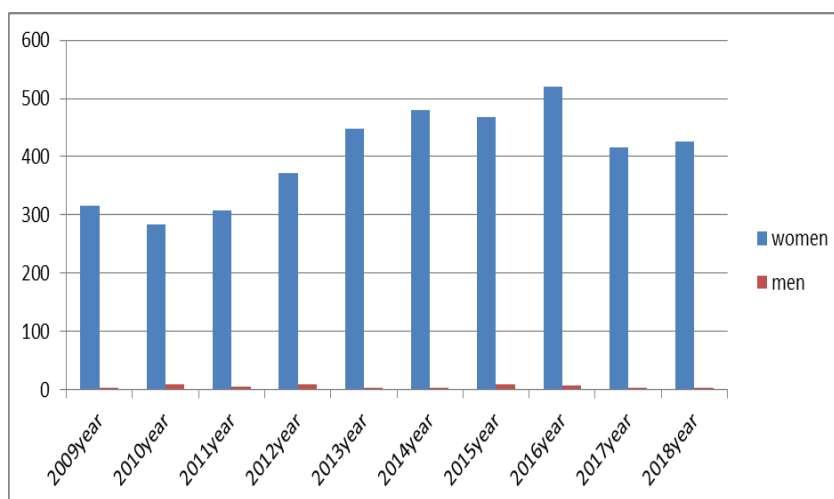
Graphic 9: Malignant breast neoplasia in 2017 year in Stip, Probishtip and Radovish.



Graphic 10: Malignant breast neoplasma in 2018 year in Stip, Probishtip and Radovish.

Table 2: Total number of polyclinic morbidity from 2009 to 2018 from breast cancer in the Eastern region, Stip, Probishtip and Radovish.

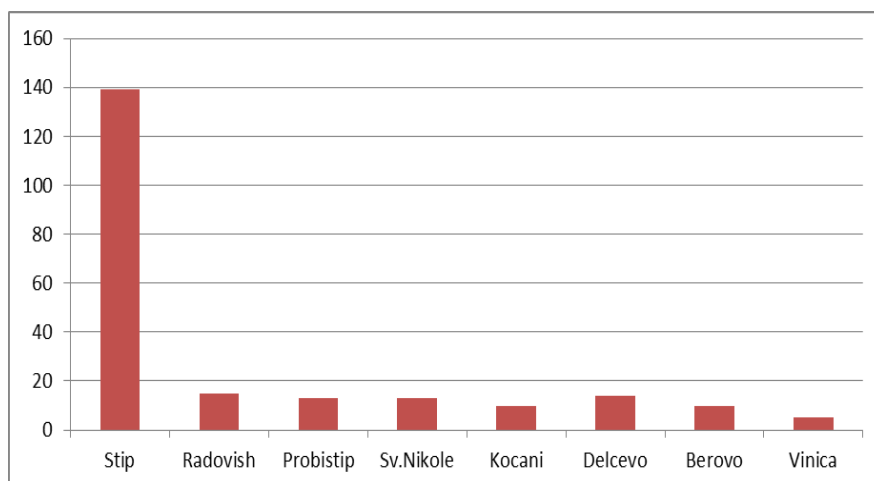
| | Women | Men |
|-----------|-------|-----|
| Year 2009 | 315 | 4 |
| Year 2010 | 283 | 10 |
| Year 2011 | 307 | 5 |
| Year 2012 | 371 | 9 |
| Year 2013 | 449 | 3 |
| Year 2014 | 481 | 4 |
| Year 2015 | 469 | 9 |
| Year 2016 | 521 | 8 |
| Year 2017 | 416 | 4 |
| Year 2018 | 425 | 4 |



Graphic 11: Total number of polyclinic morbidity from 2009 to 2018 from breast cancer in the Eastern region.

Table 3: Statistics on the number of breast cancer morbidity prevalence by in the Eastern region.

| | |
|------------|-----|
| Stip | 139 |
| Radovish | 15 |
| Probishtip | 13 |
| Sv. Nikole | 13 |
| Kocani | 10 |
| Delcevo | 14 |
| Berovo | 10 |
| Vinica | 5 |



Graphic 12: Statistics on the number of breast cancer morbidity prevalence by in the eastern region.

Table 1 shows statistical data obtained from the Center for Public Health Stip - for the number of deaths from breast cancer for a period of ten years, ie from 2009 to 2018. From the obtained results it can be noticed that the number of deceased from breast cancer increases with years, despite the fact that in advanced years the health is more developed.

Table 1 shows the morbidity of breast cancer by age in the period from 2009 to 2018. The patients are divided into 7 different age groups. According to the obtained statistical data on the number of registered cases of breast cancer in the Eastern region, it is noted at what age the morbidity of breast cancer occurs the most.

The prevalence in 2009 where the number is not very large, shows that mortality affects mostly both men and women aged from 55 to 64 years. In 2010 there is a decrease in the number of deceased patients from breast cancer, but mostly, the mortality for 2010 is noted between the ages 45-54. In 2011, a recurrent increase occurs in deaths in women. In 2012 is registered an increase in mortality between the age 65-74. In 2013, mortality was highest in patients aged 65-74. In 2014, female mortality most often occurred between the ages of 55-64. In 2015 and 2016, female highest mortality was between the ages of 65-74. While in 2017 and 2018 the mortality rate in women with breast cancer was more prevalent from 55-64 years of age.

Table 2 shows statistics on the total number of morbidity in women and men with breast cancer. From the data presented it is clear that every year the number of women is much higher than men.

The highest number of deaths from breast cancer in women are registered in 2016 and the lowest number in 2010.

The highest mortality rate among men was in 2010, while the lowest mortality rate was registered in 2013.

Table 3 shows the statistical data on breast cancer mortality over 50 years of age according to cities in eastern Macedonia. The mortality is highest in Stip, then in Radovish, Delchevo, Probistip and St. Nikole with identical number, following Kocani and Berovo, and the lowest mortality from breast cancer in the Eastern region is in Vinica.

Breast cancer is a modern disease that occurs in a large number of women of different ages, but it has been proven that this type of cancer, most often occurs in women over 50 years of age. The most important thing for this disease is to raise the awareness to the maximum level, so that it can be prevented or diagnosed earlier in order to provide better chances for treatment.

Diagnosing and evaluating any malignancy is physically, mentally, and emotionally difficult for all patients. The most important thing is to understand the basis of the disease, to communicate in a way that the treatment would be realized, which would lead to the best results. Early diagnosis gives a chance for life.

CONCLUSION

According to the processed data, there is a growing number of deaths from breast cancer in this modern society. The disease endangers a woman's life which leads to disruption of her femininity, her physical health, her mental health and if not diagnosed in time leads to a fatal outcome. One of the main ways to solve this problem is the prevention or early detection, ie solving and eliminating the risk factors as well as the development of screening methods that lead to early detection or detection of the disease in stages in which the therapy is still highly effective. According to the processed data, it is noticed that breast cancer more often affects the older population, although some of the cases occur in younger people. Frequent early and regular check-ups, especially in high-risk patients, can reduce the rate of morbidity and mortality from breast cancer.

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