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Male Breast Cancer

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Male Breast Cancer

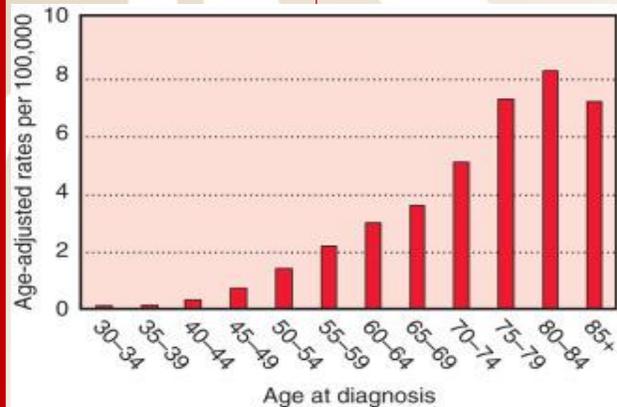
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Introduction

When you think of breast cancer do thoughts of millions of men and women donning pink ribbons assembling at charity events and walk-a-thons in support and to raise funds for the thousands of women across the country affected by this disease? Breast Cancer is a well-known disease that annually claims the lives of many women, but are you aware of just how many lives of men it takes? While 99% of breast cancer cases are found in women many people do not realize is that men are also at risk for this disease (Dwivedi, Garg, & Prasad, 2017). A significant portion of education and outreach regarding breast cancer is directed and focused solely or primarily on women. Breast cancer in males affects less than 1% of men and only one out of a thousand will be diagnosed with the disease. According to the American Cancer Society (2019), 2,670 men will be diagnosed with breast cancer (MBC) and at least 500 of them will lose their lives to this disease.

Table 1:
<https://www.sciencedirect.com/topics/medicine-and-dentistry/male-breast-cancer>



Patient Presentation

- A 64 year -old male presents to his family physician with concern for a painless lump found near his nipple in his right breast.
- The patient is unaware of how long the lump had been there.
- PT stated he was washing in the shower when he found the lump.
- Patient's family history found that his mother tested positive for the BRCA2 gene.
- The physician performs a breast exam to assess the lump and blood work
- The patient is referred to radiology for a mammogram to assess the lump
- The patient is then sent for a needle biopsy for tissue sample & pathophysiology
- The patient is diagnosed with MBC and a plan of care. The lab work stated he was + for the BRCA2 gene mutation and + for HER2 (Benjamin & Riker, 2015).

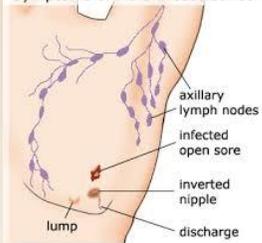
Signs & Symptoms

Men diagnosed with breast cancer can have many different signs and symptoms before being diagnosed.

- Thickening in the tissue of the breast
- A painless lump in the breast tissue
- Changes in the nipple that can cause the nipple to turn inward
- Redness, scaling, or swelling of the nipple
- Nipple discharge

Every individual is different, and each case signs and symptoms can differ (Mayo Clinic, 2018).

Symptoms of Male Breast Cancer



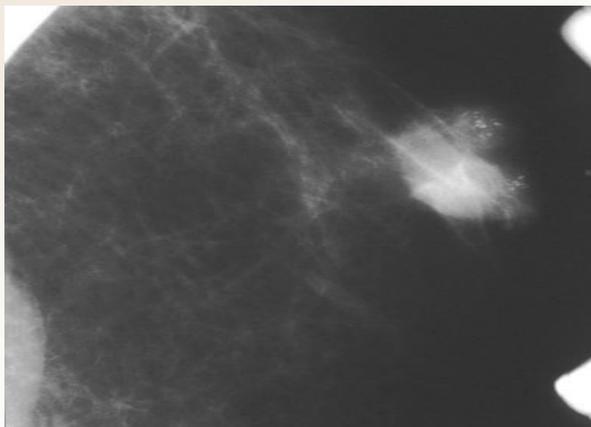
Symptoms of MBC.
http://www.aboutcancer.com/male_breast_cancer_review.htm

Diagnosing

- According to the Mayo Clinic (2018) Diagnosing breast cancer in males is the same process that as in females.
- The physician performs an assessment by feeling around the breast for lumps
- If a lump is found the patient is sent for imaging. Testing may include X-rays, mammograms, or an ultrasound
- If further examinations are needed the patient will be scheduled for a needle biopsy
- The tissue obtained from the needle biopsy will be sent to a laboratory for pathological testing
- Genomic testing can be used in MBC to determine the rate of reoccurrence of cancer

Pathophysiology

Both men and women have breast tissue and cells that have the potential to develop into breast cancer (NBCF, 2019). Breast cancer is a sequence of changes to molecules at the cellular level. These mutated cells become immortal with uncontrolled growth in the breast tissue (Chalasan, 2019). Chromosomal changes and hormones have been linked to this disease. High levels of estrogen, low levels of testosterone, and the existence or absence of human epidermal growth factor have been involved in breast cancer diagnosis (Chalasan, 2019). Tumors in male breast cancer are usually defined as ductal carcinoma in situ (Abdallah, Ghali, & Ezz El Din, 2017). Ductal means that cancer originated in the milk tubes of the breast. This type of cancer is considered invasive because they start in the area of the milk duct and then invade surrounding breast tissue. Non-invasive breast cancers are not common in men ("Male Breast Cancer: The Pathology Report," 2016). Breast cancer is diagnosed in stages the same as in females. TX: Primary tumor cannot be assessed. T0: No evidence of primary tumor. Tis: Carcinoma in situ (DCIS, or Paget disease of the nipple with no associated tumor mass) T1 (includes T1a, T1b, and T1c): Tumor is 2 cm (3/4 of an inch) or less across. T2: Tumor is more than 2 cm but not more than 5 cm (2 inches) across. T3: Tumor is more than 5 cm across. T4 (includes T4a, T4b, T4c, and T4d): Tumor of any size growing into the chest wall or skin. This includes inflammatory breast cancer ("Breast Cancer Stages in Men," 2019). There are many different subtypes of breast cancer. Gene expression profiling has identified the major subtypes as luminal A, luminal B, HER2+, basal-like, claudin-low, and normal breast (McCance & Huether, 2019).



A partially circumscribed retroareolar mass in a male with suspicious microcalcifications; this is known breast cancer. <https://emedicine.medscape.com/article/1954174-overview>

Significance of pathophysiology

Male breast cancer has a higher mortality rate than women due to the rarity of the diagnosis, as well as the age in which it is usually diagnosed in men. Practitioners that understand the pathophysiology of this disease can educate men on the importance of self-breast exams and signs and symptoms to monitor in patients that are at a higher risk of developing breast cancer. If diagnosed early on a plan of care consisting of medication, radiation, surgery, could assist in a higher survival rate.



<https://www.nationalbreastcancer.org/male-breast-cancer>

Risk Factors

- Exposure to radiation
- Increased levels in the hormone estrogen
- Family history of breast cancer
- Genetic predisposition of the BRCA2 gene (NBCF, 2019)
- Age is a factor, more common in men older than 60.
- Men diagnosed with Klinefelter's syndrome
- Liver disease
- Obesity
- Testicle disease or surgery (Mayo Clinic, 2018)

Nursing Implications

Advanced practice nurses (APN) need to understand and prepare to provide education to patients and families diagnosed with MBC. They need to have up-to-date knowledge on the signs, symptoms, medical and family history, and treatments available for patients to make informed decisions for their health care. They need to understand the impact this will have on the patient not only medically but spiritually, and psychologically as well. Every patient should be educated that they need to stay current on:

- Self-breast exams
 - Lab work
 - Family history updates
 - Lifestyle modifications
 - Psychological and spiritual health
- These factors may help to reduce risk factors (RABBEE & GROGAN, 2016).

Conclusion

MBC has been hard to understand due to the nature of the disease, but it is being talked about more today than before. In the last 10 years, there has been an increase in information and research about MBC (Dwivedi, Garg, & Prasad, 2017). Early detection, education, and medical management of men diagnosed with breast cancer are key in survival due to the high number of deaths in men diagnosed. Nurse practitioners and medical staff have an obligation to give each individual the best fighting chance of survival and this can be achieved by education.

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Additional Resources

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