Breast Cancer

[Name of the Writer]

[Name of the Institution]

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**Introduction**

Breast cancer is a disease in which the breast cells grow out of control. The term, “breast cancer” refers to a malignant tumor that develops from the cells in the breast. It is one of the most common invasive cancer that occurs in women and one of the major causes of death as well. However, there are only 5-10% chances that there is an inherited abnormality from mother or father (Breast cancer, 2020). Usually, 85 to90% of breast cancer issues are due to the genetic abnormalities that are the result of some ongoing aging process, as well as “wear and tear” in life. According to the American Cancer Society, 110,000 cases of breast cancer are found, 27% of cases were cured while 19% of cases resulted in death. There is a high risk of cancer in Whites while a 25% increase is found in Blacks. The highest incidence of this disease is found after 35 years of age where 83% of cases occur after 50 years of age. In addition, it is found that 1.5% of cases are recorded after 35 years of age. It is found that 1 in 11 women develop breast cancer in their lifetime (Breastcancer.org, 2016).

**Etiology**

It occurs as a result of some abnormal changes and mutations in the genes that are responsible for regulating the growth of cells so as to keep them healthy. Either breast cancer begins in the lobules of lobe, which are also called the milk-producing glands or it can occur in ducts which are the passages that are responsible for draining milk from lobes to the nipples (Breast cancer, 2020). In very rare cases, breast cancer can begin in the stromal tissues, which comprises of the fibrous and fatty connective tissues, found in the breast (Mavaddat et al., 2019). The cancer cells can also invade the other tissues, healthy breast tissues and reach the underarm lymph nodes. These nodes are small organs that are responsible for filtering the foreign substance in the body. Breast cancer is always caused by a genetic abnormality. In addition, radiation to chest or face before 20 years of age can also cause cancer (Mavaddat et al., 2019).

**Risk Factors**

There are different risk factors of breast cancer such as being overweight, lack of a healthy diet, lack of exercise, alcohol consumption, smoking, stress and anxiety, exposure to estrogen, and any recent oral contraceptive use. In addition, being a woman is one of the major risk factors for developing breast cancer. Age is also significant taking into account that from age 30 to 39 the risk factor is 1 in 228 while it is 3.5 by the age of 60. Environmental factors are also significant such as chemicals in lawns and gardens, food, as well as in cosmetics. Genetic basis is also prominent, proved by many researches (Breastcancer.org, 2016).

**Pathophysiological processes**

Breast cancers spread through lymph nodes, or bloodstream, in many cases both. Metastatic breast cancer can impact the body organs as well some major areas such as, liver, bones, skin, lungs, and brain. In addition, estrogen and progesterone receptors in the breasts are the nuclear hormone receptors that pave the way for DNA replication as well as cell division. Postmenopausal patients have an estrogen reception positive tumor, which is found to be low in premenopausal patients (Fachal et al., 2020).

**Clinical manifestation and complications**

As a result of breast cancer, there is a change in breast, irregular shaped lump, breast thickening, some kind of discharge from the nipple, integumentary skin as well. There are several lifestyle influences of breast cancer as well such as not being physically active, obesity after menopause and an increase in blood pressure. There are different complications associated with breast cancer such as swelling, tenderness of breast, hardness, phantom breast pain, secondary cancer, and sadness. All these can get severe or even lead to more serious diseases if left untreated such as dental issues, fatigue, psychological disorder, and bone loss (Mavaddat et al., 2019).

**Diagnostic measures**

Different diagnostic measures are used for curing breast cancer such as breast exams, mammograms, breast ultrasounds, removing a sample of the breast for testing and breast magnet resonance imaging. After these tests and analysis, different treatments are offered such as lumpectomy, removing the entire breast, removing several nodes or some of the lymph nodes (Mavaddat et al., 2019).

References

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