

## Breast Cancer and its prevention

Amna Shakoor<sup>1</sup>, Noor-ul-Ain Tariq<sup>2</sup>, Ayesha Arshad<sup>3</sup>, Zia ud Din Sindhu<sup>4</sup> and Furqan Munir<sup>4\*</sup>

1. Department of Anatomy, University of Agriculture, Faisalabad, Pakistan.
2. Department of Biotechnology, University of Agriculture, Faisalabad, Pakistan.
3. Department of Plant Pathology, University of Agriculture, Faisalabad, Pakistan.
4. Department of Parasitology, University of Agriculture, Faisalabad, Pakistan.

\*Corresponding Author: [vtfurqan@gmail.com](mailto:vtfurqan@gmail.com)

### ABSTRACT

In women, breast cancer in cancers is the second leading cause of death. As Pakistan is a developing country where most people live in villages. Indigenous people are unaware of breast cancer due to a lack of awareness among them. It is the uncontrolled division of cells in the breast that could also spread to distant organs of the body. Currently, many diagnostic and treatment options for breast cancer are available and if treated could be cured. People who adopt healthy lifestyles have the least chance of the occurrence of cancer. Moreover, it is also related to the age and steroid hormones of humans.

#### Introduction:

Pakistan is an agricultural country where most of the people live in villages and are associated with agriculture and livestock. Women are an integral part of our community which takes part in work equally with their men. Unfortunately, in this contemporary age, there are still many places where they are deprived of their basic rights including their health and well-being. Many women are still illiterate and could not talk fearlessly about their health issues. Breast cancer is one of the major health issues and about 1 out of 9 women may become the victim of cancer. Over 1.5 million women every year globally are diagnosed with breast cancer. When the division of cells is uncontrolled in the breast tissue, it will lead to breast cancer. This organ consists of three main parts such as lobules, ducts, and connective tissues. The lobules are responsible for the milk's synthesis, the ducts bring it to the nipples, and the connective tissues enclose and bind the cells. Most breast cancers start in the lobules or ductus. If breast cancer is not treated early, it may also spread to other organs such as the brain, lungs, liver, and bone. The development of a lump, discomfort, thickening of the breast tissue, soreness, redness, or flaky skin around the nipple, discharge other than milk, including blood, and changes in the organ's size are all signs of breast cancer [1].

#### Risk factors

**Aging:** this is the most important risk factor of breast cancer because with an increase in age incidence of the breast cancer also increases. **Estrogen:** This steroid hormone also leads to the occurrence of cancer. Both exogenous and endogenous estrogens could cause cancer. The source of exogenous estrogen hormone includes hormone replacement therapy and contraceptives while ovaries are the source of endogenous estrogen hormone. **Lifestyle:** The lifestyle of the people also has an impact on the chances of the occurrence of breast cancer. Those women who eat more fatty food items and drink excessive alcohol are more prone to the incidence of cancer.

#### Diagnosis

Early diagnosis will be very effective for providing timely and workable treatment that could save someone's life. It could be diagnosed with mammography, ultrasonography, magnetic resonance imaging, biopsy, electrochemical and optical biosensors, and gene biomarkers [2].

#### Treatment

The treatment options include chemotherapy, radiotherapy, targeted treatment, hormonal treatment, and surgery. The initial form of treatment for breast cancer is surgery. The operation will be based on the type of breast cancer. Chemotherapy, radiation, and occasionally hormone and targeted therapies are typically used after surgery. Chemotherapy kills cancer cells by using anti-cancer medications. After surgery, it is typically utilized to remove any malignant tumors that could not be eliminated. Following chemotherapy and surgery, radiotherapy uses precise doses of radiation to remove any remaining malignant material. Some breast cancers can be aided in their development by the body's naturally occurring estrogen and progesterone. These are known as hormone receptor-expressing cancers. The body's levels of estrogen or progesterone could be decreased with hormone therapy, or their effects are reversed. Drugs used for targeted therapies change how cells operate and help to stop the growth and spread of cancer. Not all types of breast cancer respond well to targeted therapy. [3].

#### Preventions

A healthy lifestyle can reduce the chances of the occurrence of cancer. Breast cancer risk increases with alcohol consumption. Alcohol use should normally

be limited to one drink per day because even a tiny amount can increase the risk, according to research on how alcohol impacts breast cancer risk. Keep a healthy weight and ask your doctor for advice on how to reduce weight effectively. Don't eat as many calories per day, but gradually increase your workout. Exercise can aid in maintaining a healthy weight, which lowers the risk of developing breast cancer. Aim for at least 150 minutes of moderate aerobic activity or 75 minutes of vigorous aerobic activity per week for the majority of healthy individuals, including twice-weekly strength training. Breastfeeding may help in breast cancer prevention. The protective advantage increases as nursing continues. Reduction in the amount of postmenopausal hormone therapy decreases the risks. With your doctor, go about the benefits and drawbacks of hormone therapy. It is possible to manage the symptoms with the aid of medication and nonhormonal therapy. If the benefits of short-term hormone therapy outweigh the risks, use the lowest dose possible [4].

#### Conclusion

Among women the leading cause of death is breast cancer. An early diagnosis of cancer could save someone's life. Surgery is the main treatment method for breast cancer, the whole or part of the organ is removed. Persons who have a healthy lifestyle may have less incidence of cancer.

#### References

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