

VARIOUS TYPES OF BREAST CANCER

Sudhir Singh

Department of Medical

Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India

ABSTRACT: *Nowadays, breast cancer is the most frequently recognized existence-threatening most cancers in ladies and the main reason of cancer demise amongst women. Considering the fact that ultimate two a long time, research associated with the breast most cancers has caused tremendous progress in our expertise of the ailment, ensuring greater efficiency and much less poisonous treatments. elevated public cognizance and improved screening have led to earlier prognosis at degrees amenable to complete surgical resection and curative healing procedures. Therefore, survival fees for breast cancer have stepped forward extensively, especially in more youthful ladies. This newsletter addresses the types, causes, clinical signs and symptoms and various techniques each non- drug (including surgery and radiation) and drug treatment (together with chemotherapy, gene remedy etc.) of breast cancer.*

KEYWORDS: *Breast Cancer, infiltrating lobular carcinoma (ILC), Infiltrating ductal carcinoma (IDC), Inflammatory breast cancer(IBC), Phyllo ides tumor.*

INTRODUCTION

Breast cancer is the most common purpose of cancer in women and the second maximum commonplace cause of most cancers dying in women inside the U.S. Breast cancer refers to cancers originating from breast tissue, most commonly from the inner lining of milk ducts or the lobules that deliver the ducts with milk. worldwide, breast most cancers incorporate all cancer incidences amongst girls, making it the second maximum common kind of non-pores and skin most cancers (after lung cancer) and the 5th most common purpose of cancer dying [1]. In 2004, breast cancer brought about 519,000 deaths global (7% of cancer deaths; almost 1% of all deaths).

Breast cancer is one hundred times extra common in women than in men, even though men have a tendency to have poorer outcomes because of delays in diagnosis. Cancer cells are very similar to cells of the organism from which they originated and feature comparable (however no longer identical) DNA and RNA [2]. That is the reason why they're no longer very often detected by means of the immune gadget, especially if it is weakened. Cancer cells are formed from ordinary cells due to a modification / mutation of DNA and / or RNA. those changes / mutations can occur spontaneously ill law of Thermodynamics - growth of entropy) or they may be induced by using other factors inclusive of; nuclear radiation, electromagnetic radiation (microwaves, X-rays, Gamma-rays, Ultraviolet-rays and many others.), viruses, microorganism and fungi, parasites (because of tissue inflammation / irritation, warmth,

chemical substances in the air, water and meals, mechanical cellular-stage harm, loose radicals, evolution and growing old of DNA and RNA, and many others [3].

All these can produce mutations that could begin cancer. Cancer may be called therefore “Entropic sickness” because it's far related to the growth of entropy of the organism to the point where the organism cannot correct this itself outside intervention is required to permit the organism to return to a solid entropic kingdom. Most cancers develop if the immune system is not running nicely and / or the amount of cells produced is simply too amazing for the immune gadget to cast off. The rate of DNA and RNA mutations may be too high beneath some situations which include; bad environment (because of radiation, chemicals, and so on.) poor food plan (unhealthy cellular environment), people with genetic predispositions to mutations and those of superior age (above 80).

DISCUSSION

Types of Breast Cancer

Non-Invasive Breast Cancer cells that are confined to the ducts and do not invade surrounding fatty and connective tissues of the breast. Ductal carcinoma in situ (DCIS) is the most common form of non-invasive breast cancer (90%). Lobular carcinoma in situ (LCIS) is less common and considered a marker for increased breast cancer risk [4].

Invasive Breast Cancer cells that break through the duct and lobular wall and invade the surrounding fatty and connective tissues of the breast. Cancer can be invasive without being metastatic (spreading) to the lymph nodes or other organs [5].

Frequently occurring Breast cancer:

Lobular carcinoma in situ (LCIS, lobular neoplasia): The term, “in situ,” refers to cancer that has not spread past the area where it initially developed. LCIS is a sharp increase in the number of cells within the milk glands (lobules) of the breast.

Ductal carcinoma in situ (DCIS): DCIS, the most common type of non-invasive breast cancer, is confined to the ducts of the breast. For example, ductal comedocarcinoma [6].

Infiltrating lobular carcinoma (ILC):

ILC is also known as invasive lobular carcinoma. ILC begins in the milk glands (lobules) of the breast, but often spreads (metastasized) to other regions of the body. ILC accounts for 10% to 15% of breast cancers [7].

Infiltrating ductal carcinoma (IDC):

IDC is also known as invasive ductal carcinoma. IDC begins in the milk ducts of the breast and penetrates the wall of the duct, invading the fatty tissue of the breast and possibly other regions of the body. IDC is the most common type of breast cancer, accounting for 80% of breast cancer diagnoses.

Less commonly occurring Breast cancer:

Medullary carcinoma: Medullary carcinoma is an invasive breast cancer that forms a distinct boundary between tumor tissue and normal tissue. Only 5% of breast cancers are medullary carcinoma [8].

Mucinous carcinoma: Also called *colloid carcinoma*, mucinous carcinoma is a rare breast cancer formed by the mucus-producing cancer cells. Women with mucinous carcinoma generally have a better prognosis than women with more common types of invasive carcinoma.

Tubular carcinoma: Tubular carcinomas are a special type of infiltrating (invasive) breast carcinoma. Women with tubular carcinoma generally have a better prognosis than women with more common types of invasive carcinoma. Tubular carcinomas account for around 2% of breast cancer diagnoses.

Inflammatory breast cancer:

Inflammatory breast cancer is the appearance of inflamed breasts (red and warm) with dimples and/or thick ridges caused by cancer cells blocking lymph vessels or channels in the skin over the breast. Though inflammatory breast cancer is rare (accounting for only 1% of breast cancers), it is extremely fast-growing [9].

Paget's disease of the nipple:

A rare form of breast cancer that begins in the milk ducts and spreads to the skin of the nipple and areola, Paget's disease of the nipple only accounts for about 1% of breast cancers.

Phylloides tumor:

Phylloides tumors (also spelled "phyllodes") can be either benign (non-cancerous) or malignant (cancerous). Phylloides tumors develop in the connective tissues of the breast and may be treated by surgical removal. Phylloides tumors are very rare; less than 10 women die of this type of breast cancer each year in the United States [10].

Cause of Breast Cancer:

Genetic causes:

Family history has long been known to be a risk factor for breast cancer. Both maternal and paternal relatives are important. The risk is highest if the affected relative developed breast cancer at a young age, had cancer in both breasts, or if she is a close relative. First-degree relatives, (mother, sister, daughter) are most important in estimating risk. Several second-degree relatives (grandmother, aunt) with breast cancer may also increase risk. Breast cancer in a male increases the risk for all his close female relatives. *BRCA1* and *BRCA2* are abnormal genes that, when inherited, markedly increase the risk of breast cancer to a lifetime risk estimated between 40 and 85%. Women who have the *BRCA1* gene tend to develop breast cancer at an early age.

Hormonal causes:

Alteration in hormonal level may precipitate breast cancer. It could be attended by starting and stopping of periods (Menstrual Cycle), Pregnancy in early age, Hormonal replacement therapy, Use of oral pills etc.

Lifestyle and dietary cause:

Sedentary life style, high dietary intake of fat obesity particularly in postmenopausal women may cause breast cancer. The use of alcohol is also another one cause of breast cancer. The risk increases with the amount of alcohol consumed. Women who consume two to five alcoholic beverages per day have a risk about one and a half times that of nondrinkers for the development of breast cancer.

Environmental cause:

There is known to be a slight increase in risk in ladies who work with low doses of radiation over a long period of time-for example, X-ray technicians.

Sign and symptoms:

The classic symptom for breast cancer is a lump found in the breast or armpit. Doing monthly breast self-exam (BSE) is a great way to be familiar with the breasts' texture, cyclical changes, size, and skin condition. The general alerting features of breast cancer are such as swelling or lump (mass) in the breast, swelling in the armpit (lymph nodes), nipple discharge (clear or bloody), pain in the nipple, inverted (retracted) nipple, scaly or pitted skin on nipple, persistent tenderness of the breast, and unusual breast pain or discomfort. In Advanced stage (Metastatic) of disease underarm lymph nodes are present with other symptoms such as bone pain (bone metastases), shortness of breath (lung metastases), drop in appetite (liver metastases), unintentional weight loss (liver metastases), headaches, neurological pain or weakness

CONCLUSION

The prevalence of breast cancer in women may be determined in simplest 5% instances with a malignant mass gift with breast ache. different signs and symptoms such as immobility, skin adjustments (i. e, thickening, swelling, and redness) or nipple abnormalities (i.e., ulceration, retraction, spontaneous bloody discharge) can also be given at the same time. Nowadays there are so many processes, which may be made for the treatment of the cancer of breast inclusive of surgery, radiation therapy chemotherapy, hormonal therapy and currently nanotechnology and gene remedy. With advances in screening, diagnosis, and treatment, the loss of life fee for breast most cancers have declined. In fact, about ninety% of women newly identified with breast cancer will survive for at least five years. research is ongoing to develop even extra powerful screening and treatment packages.

REFERENCES

- [1] B. Weigelt and J. S. Reis-Filho, "Histological and molecular types of breast cancer: Is there a unifying taxonomy?," *Nature Reviews Clinical Oncology*. 2009, doi: 10.1038/nrclinonc.2009.166.
- [2] BCSC, "Types of Breast Cancer," *Breast Cancer Soc. Canada*, 2014.
- [3] G. N. Sharma, R. Dave, J. Sanadya, P. Sharma, and K. K. Sharma, "Various types and management of breast cancer: An overview," *Journal of Advanced Pharmaceutical Technology and Research*. 2010.
- [4] R. Dent *et al.*, "Triple-negative breast cancer: Clinical features and patterns of recurrence," *Clin. Cancer Res.*, 2007, doi: 10.1158/1078-0432.CCR-06-3045.
- [5] S. Horvath, "DNA methylation age of human tissues and cell types," *Genome Biol.*, 2013, doi: 10.1186/gb-2013-14-10-r115.
- [6] Y. S. Sun *et al.*, "Risk factors and preventions of breast cancer," *International Journal of Biological Sciences*. 2017, doi: 10.7150/ijbs.21635.
- [7] C. Sotiriou and L. Pusztai, "Gene-Expression Signatures in Breast Cancer," *N. Engl. J. Med.*, 2009, doi: 10.1056/nejmra0801289.
- [8] Various, "Diet, nutrition, physical activity and Breast Cancer Survivors," *WCRF AICR Reports*, 2014.
- [9] B. Weigelt, F. C. Geyer, and J. S. Reis-Filho, "Histological types of breast cancer: How special are they?," *Molecular Oncology*. 2010, doi: 10.1016/j.molonc.2010.04.004.
- [10] C. I. Li, D. J. Uribe, and J. R. Daling, "Clinical characteristics of different histologic types of breast cancer," *Br. J. Cancer*, 2005, doi: 10.1038/sj.bjc.6602787.

