

Pathophysiology of Breast Cancer and its Types

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DESCRIPTION

Breast cancer is one of the most common types of cancer that affects women worldwide. It occurs when the cells in the breast tissue start to grow abnormally and form a tumor. There are several types of breast cancer, each with unique characteristics and treatment options. The most common types of breast cancer are invasive ductal carcinoma, invasive lobular carcinoma, and ductal carcinoma in situ.

Invasive ductal carcinoma

The most prevalent form of breast cancer, Invasive Ductal Carcinoma (IDC), accounts for about 80% of all breast cancer occurrences. This type of cancer starts in the milk ducts of the breast and can spread to the surrounding tissue if left untreated. IDC can also spread to other parts of the body, such as the lymph nodes, lungs, and liver.

The symptoms of IDC include a lump or thickening in the breast, nipple discharge and changes in the size or shape of the breast. Treatment for IDC typically involves surgery to remove the tumor followed by chemotherapy or radiation therapy to kill any remaining cancer cells.

Invasive lobular carcinoma

The second most frequent form of breast cancer, Invasive Lobular Carcinoma (ILC), accounts for roughly 10%-15% of all occurrences. ILC starts in the milk-producing glands of the breast and can spread to other parts of the body if left untreated.

The symptoms of ILC include an area of thickening in part of the breast, a new area of fullness or swelling in the breast and a change in the texture or appearance of the skin over the breast, such as dimpling or thickening. Treatment for ILC usually involves surgery and additional (adjuvant) therapy, which may include chemotherapy, radiation and hormone therapy.

Ductal carcinoma in situ

Ductal Carcinoma *In Situ* (DCIS) is a non-invasive form of breast

cancer that starts in the milk ducts of the breast. In DCIS, the cancer cells are contained within the ducts and have not spread to surrounding tissue. While DCIS is not invasive, it can increase the risk of developing invasive breast cancer in the future if left untreated.

The symptoms of DCIS are similar to those of IDC and ILC and may include a lump or thickening in the breast, nipple discharge, and changes in the size or shape of the breast. Treatment for DCIS usually involves surgery to remove the affected ducts, followed by radiation therapy to kill any remaining cancer cells.

Inflammatory breast cancer

Inflammatory Breast Cancer (IBC) is a rare but aggressive form of breast cancer that accounts for about 1%-5% of all breast cancers. It occurs when cancer cells block the lymphatic vessels in the breast, causing redness, swelling, and warmth in the breast tissue. IBC may not form a distinct lump and is often mistaken for an infection or injury.

Triple-negative breast cancer

Triple-negative breast cancer is a rare and aggressive form of breast cancer that accounts for approximately 10%-20% of all breast cancer cases. This type of cancer does not respond to hormonal therapy or drugs that target Human Epidermal Growth Factor Receptor 2 (HER2), which are commonly used to treat other types of breast cancer.

The symptoms of triple-negative breast cancer are similar to those of other types of breast cancer and may include a lump or thickening in the breast, nipple discharge, and changes in the size or shape of the breast. Treatment for triple-negative breast cancer usually involves a combination of chemotherapy, surgery, and radiation therapy.

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