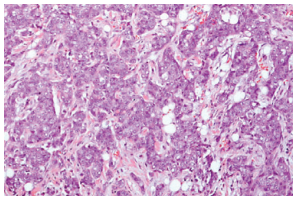
Breast Cancer

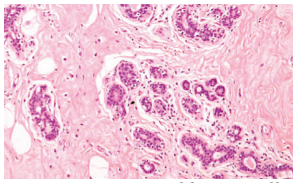
Invasive Ductal Carcinoma

What is Invasive Ductal Carcinoma?

Invasive Ductal Carcinoma, also known as IDC or Infiltrating Ductal Carcinoma or Carcinoma of No Special Type (NST) or Not Otherwise Specified (NOS), is the most common invasive breast cancer, representing 65 to 85 percent of all cases. IDC starts in the breast's milk ducts and invades surrounding breast tissue. If not treated at an early stage, IDC can move into other parts of the body through your bloodstream or lymphatic system.



Invasive ductal carcinoma (above) is the most common invasive breast cancer.



Normal breast cells.

Who is most likely to have IDC?

Women have a greater like lihood of having breast cancer after they reach age 45. As a woman ages,breast cancer risk does not decline, with about 50 percent of IDC cases occurring after age 65. About 20 percent of women with breast cancer have a family history of the disease. Other factors increasing the risk of breast cancer include having no children or the first child after age 30, early menstruation, and consuming more than three alcoholic drinks a day.

What characterizes IDC?

IDC is characterized by a hard lump with irregular borders. The IDC lump will feel harder, firmer and more anchored than a benign breast lump. The skin over the affected area or the nipple may be retracted (pulled in). On a mammogram, IDC usually looks like a mass with spikes radiating from the edges; sometimes it appears as a smooth-edged lump or as calcifications in the tumor area.

How does the pathologist make a diagnosis?

The pathologist examines biopsy specimens, along with other tests if necessary. If mammography shows suspicious findings, a biopsy may be recommended. A biopsy is the most widely used method for making a firm diagnosis of breast cancer. During a biopsy procedure, a doctor removes cells or tissues from the suspicious area for the pathologist to examine more closely in the laboratory. In some cases, a biopsy may be performed with surgery. The surgeon removes all or part of the tumor for the pathologist to examine.

Laboratory testing enables the pathologist to determine the type of cancer and whether it is invasive. The pathologist examines the tissue sample under a microscope and assigns a histologic type and a ***histologic tumor grade***. Grade 1 cancers tend to grow the slowest, while Grade 3 tumors spread more aggressively. The pathologist also notes the size of the tumor, how close the cancer is to the edge of the tissue removed by the surgeon, and whether the tumor invaded blood or lymphatic vessels. These factors help pathologists determine the likelihood of the cancer remaining in or returning to the affected area.

What else does the pathologist look for?

The biopsy sample is tested for the presence of ***estrogen and progesterone receptors***. Women with cancers containing these receptors are more likely to respond positively to hormone therapy. Pathologists also may check for a protein called ***HER2/neu***. Cancers with too much of this protein may respond to targeted therapy with Herceptin. Due to continual advances in research, other tests may be used as well.

After reviewing the results of the laboratory tests, your clinician may recommend additional tests to determine to what extent malignant cells may have spread to other parts of the body. Depending on your situation, these tests may include a chest x-ray; a bone scan; and imaging tests such as computed tomography (CT), magnetic resonance imaging (MRI), or PET (positronemission tomography). All these tests can detect signs that the cancer may have spread to other parts of the body.

With all necessary tests completed, the pathologist determines the cancer's ***stage***. Stage 1 IDC tumors are confined to the breast,and Stage 4 IDC tumors have spread beyond areas near the breast. Stages 2 and 3 describe conditions in between these two extremes.

For more information, go to www.cancer.org (American Cancer Society) or www.y-me.org.

Definitions

Invasive, Infiltrating:
Capable of spreading to other parts of the breast or body.

Ductal:
Relating to the breast's milk ducts, the parts of the breast through which milk flows.

Carcinoma:
A type of cancerous, or malignant, tumor.

Calcification:
Calcium deposits in the breast can be associated with Ductal Carcinoma In Situ. Clusters of these deposits may indicate cancer.

Pathologist:
A physician who examines tissues and fluids to diagnose disease in order to assist in making treatment decisions.

Lymphatic:
Relating to lymph glands, especially those located near the breast.

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