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Breast Cancer - Metaplastic - Stages [1]

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ON THIS PAGE: You will learn about how doctors describe a cancer?s growth or spread. This is called the stage. To see other pages, use the menu on the side of your screen.

Staging is a way of describing where the cancer is located, how much it has grown, and if or where it has spread. Doctors use diagnostic tests to find out the cancer's stage, so staging may not be complete until all the tests are finished. Knowing the stage helps the doctor to decide what kind of treatment is best and can help predict a patient's prognosis, which is the chance of recovery. There are different stage descriptions for different types of cancer.

The most commonly used tool that doctors use to describe the stage is the TNM system. TNM is an abbreviation for tumor (T), node (N), and metastasis (M). Doctors look at these three factors to determine the stage of cancer:

- How large is the primary tumor and where is it located? **(Tumor, T)**
- Has the tumor spread to the lymph nodes, and if so, how many nodes are involved? **(Node, N)**
- Has the cancer metastasized to other parts of the body? **(Metastasis, M)**

The results are combined to determine the stage of cancer for each person. There are five stages: stage 0 (zero), which is noninvasive ductal carcinoma in situ (DCIS), and stages I through IV (one through four), which are used for invasive breast cancer. The stage provides a common way of describing the cancer, so doctors can work together to plan the best treatments.

There are two types of TNM staging for breast cancer. First, the clinical stage is based on the results of tests done before surgery, such as a physical examination, x-rays, and CT and MRI scans. Then, the pathologic stage is assigned after surgery based on the pathology results from the breast tissue and any lymph nodes removed. It is usually determined several days after surgery. In general, more importance is placed on the pathologic stage than the clinical stage.

Here are more details on each part of the TNM system for metaplastic breast cancer:

Tumor. Using the TNM system, the ?T? plus a letter or number (0 to 4) is used to describe the size and location of the tumor. Some stages are divided into smaller groups that help describe the tumor in even more detail.

TX: The primary tumor cannot be evaluated.

T0: There is no evidence of cancer in the breast.

Tis: Refers to *carcinoma in situ.* The cancer is confined within the ducts or lobules of the breast tissue and has not spread into the surrounding tissue of the breast. There are three types of breast carcinoma in situ:

Tis (DCIS): DCIS is a noninvasive cancer, but if not removed it can later develop into an invasive breast cancer. DCIS means that cancer cells have been found in breast ducts and have not spread past the layer of tissue where they began.

Tis (LCIS): Lobular carcinoma in situ (LCIS) describes abnormal cells found in the lobules or glands of the breast. LCIS is not cancer, but it increases the risk of developing invasive breast cancer.

Tis (Paget?s): Paget?s disease of the nipple is a rare form of early, noninvasive cancer that is only in the skin cells of the nipple. Sometimes Paget?s disease is associated with another invasive breast cancer. If there is also an invasive breast cancer present, it is classified according to the stage of the invasive tumor.

T1: The invasive part of the tumor in the breast is 20 millimeters (mm) or smaller in size at its widest area. This is a little less than an inch. This stage is then broken into three substages depending on the size of the tumor:

- T1a is a tumor that is larger than 1 mm, but 5mm or smaller
- T1b is a tumor that is larger than 5 mm, but 10 mm or smaller
- T1c is a tumor that is larger than 10 mm, but 20 mm or smaller.

T2: The invasive part of the tumor is larger than 20 mm but not larger than 50 mm.

T3: The invasive part of the tumor is larger than 50 mm.

T4: The tumor falls into one of the following groups:

- T4a means the tumor has grown into the chest wall.
- T4b is when the tumor has grown into the skin.
- T4c is cancer that has grown into the chest wall and the skin.
- T4d is inflammatory breast cancer [3].

Node. The ?N? in the TNM staging system stands for lymph nodes. Lymph nodes located under the arm, above and below the collarbone, and under the breastbone are called regional lymph nodes. Lymph nodes in other parts of the body are called distant lymph nodes. As explained above, if the doctor evaluates the lymph nodes before surgery, based on other tests and/or a

physical examination, a letter ?c? for ?clinical? staging is placed in front of the ?N.? If the doctor evaluates the lymph nodes after surgery, which is a more accurate assessment, a letter ?p? for ?pathologic? staging is placed in front of the ?N.? The information below describes the pathologic staging.

NX: The lymph nodes cannot be evaluated.

N0: No cancer was found in the lymph nodes.

N0(i+): When very small areas of ?isolated? tumor cells are found in a lymph node under the arm, called the axillary lymph nodes. This is usually less than 0.2 mm or less than 200 cells. In this stage, the nodes are still called N0, but an ?i+? is also listed.

N1mic: Cancer in the axillary lymph nodes is larger than 0.2 mm but less than 2 mm in size and can only be seen through a microscopic.

N1: The cancer has spread to one to three *axillary* lymph nodes under the arm. This category can include positive internal mammary lymph nodes if they are found during a sentinel lymph node procedure and not otherwise clinically detected. The internal mammary lymph nodes are located under the sternum or breastbone.

N2: The cancer within the lymph nodes falls into one of the following groups:

- N2a is when the cancer has spread to four to nine axillary, or underarm, lymph nodes.
- N2b is when the cancer has spread to or to internal mammary lymph nodes without spread to the axillary nodes.

N3: The cancer falls within one of the following groups:

- **N3a is when** the cancer has spread to 10 or more lymph nodes under the arm or to those located under the clavicle, or collarbone.
- N3b is when the cancer has spread to the internal mammary nodes and the axillary nodes.
- N3c is when the cancer has spread to the lymph nodes located above the clavicle, called the supraclavicular lymph nodes.

If there is cancer in the lymph nodes, knowing how many lymph nodes are involved, and where they are helps doctors to plan treatment. The pathologist can find out the number of axillary lymph nodes that contain cancer after they are removed during surgery. It is not common to remove the supraclavicular or internal mammary lymph nodes during surgery. If there is cancer in these lymph nodes, treatment other than surgery, such as radiation therapy, chemotherapy, and hormonal therapy, is used to control the disease.

Distant metastasis. The ?M? in the TNM system indicates whether the cancer has spread to other parts of the body.

MX: Distant spread cannot be evaluated.

M0: The disease has not metastasized.

M0 (i+): There is no clinical or radiographic evidence of distant metastases, but microscopic evidence of tumor cells is found in the blood, bone marrow, or other lymph nodes that are no larger than 0.2 mm in a patient without other evidence of metastases.

M1: There is evidence of metastasis to another part of the body, meaning there are breast cancer cells growing in other organs.

Cancer stage grouping

Doctors assign the stage of the cancer by combining the T, N, and M classifications. Most patients are anxious to learn the exact stage of the cancer. However, it is important to keep in mind that tumor biology, including the diagnostic markers outlined above, has a significant impact on the type of treatment that is recommended, as well as on the prognosis. Your doctor will generally confirm the stage of the cancer when the testing after surgery is completed, usually about five to seven days after surgery. When treatment is given before surgery, called neoadjuvant therapy, the stage of the cancer will be determined from other tests.

Stage 0: Stage zero (0) describes disease that is only in the ducts and lobules of the breast tissue and has not spread to the surrounding tissue of the breast. It is also called noninvasive cancer (Tis, N0, M0).

Stage IA: The tumor is small, invasive, and has not spread to the lymph nodes (T1, N0, M0).

Stage IB: Cancer has spread only to the lymph nodes, and is larger than 0.2 mm but less than 2 mm in size**. There is either no evidence of a tumor in the breast or the tumor in the breast is 20 mm or smaller (T0 or T1, N1mic, M0).**

Stage IIA: Any one of these conditions:

- There is no evidence of a tumor in the breast, but the cancer has spread to the axillary lymph nodes but not to distant parts of the body. (T0, N1, M0).
- The tumor is 20 mm or smaller and has spread to the axillary lymph nodes (T1, N1, M0).
- The tumor is larger than 20 mm but not larger than 50 mm and has not spread to the axillary lymph nodes (T2, N0, M0).

Stage IIB: Either of these conditions:

- The tumor is larger than 20 mm but not larger than 50 mm and has spread to one to three axillary lymph nodes (T2, N1, M0).
- The tumor is larger than 50 mm but has *not* spread to the axillary lymph nodes (T3, N0, M0).

Stage IIIA: The cancer of any size has spread to four to nine axillary lymph nodes, but not to other parts of the body (T0, T1, T2 or T3, N2, M0). Stage IIIA may also be a tumor larger than 50 mm that has spread to one to three lymph nodes (T3, N1, M0).

Stage IIIB: The tumor has spread to the chest wall or caused swelling or ulceration of the breast or is diagnosed as inflammatory breast cancer [3]. It may or may not have spread to the lymph nodes under the arm, but it has not spread to other parts of the body (T4; N0, N1 or N2; M0).

Stage IIIC: A tumor of any size that has not spread to distant parts of the body but has spread to 10 or more axillary lymph nodes or the lymph nodes in the N3 group (any T, N3, M0).

Stage IV (metastatic): The tumor can be any size and has spread to other organs, such as the bones, lungs, brain, liver, distant lymph nodes, or chest wall (any T, any N, M1). Metastatic cancer spread is found when the cancer is first diagnosed about 5% to 6% of the time. Most commonly, metastatic breast cancer is found after a previous diagnosis of early-stage breast cancer.

Recurrent: Recurrent cancer is cancer that has come back after treatment, and can be either local or distant or both. If there is a local recurrence, the cancer may need to be staged again (called re-staging) using the system above.

Used with permission of the American Joint Committee on Cancer (AJCC), Chicago, Illinois. The original source for this material is the AJCC Cancer Staging Manual Seventh Edition *(2010) published by Springer-Verlag New York,www.cancerstaging.net[4].*

Information about the cancer?s stage will help the doctor recommend a treatment plan. The next section helps explain the treatment options for this type of cancer. Use the menu on the side of your screen to select Treatment Options, or you can select another section, to continue reading this guide.

Links:
[1] http://www.cancer.net/cancer-types/breast-cancer-metaplastic/stages
[2] http://www.cancer.net/about-us
[3] http://www.cancer.net/node/31326
[4] http://www.cancerstaging.net/