

# Beating Breast Cancer



**The ailment accounts for nearly 32% of all female cancers. Learn about the symptoms and treatment options available today, advises Dr Shilpa Lad**

Breast cancer is on the rise today. As per the Population Based Cancer Registry, it accounts for 25% to 32% of all female cancers in urban Indian cities. This implies, that one-fourth of all female cancer cases are of breast cancer. The most concerning fact is that for every two women newly diagnosed with breast cancer, one woman is dying of it.

Since more patients in India are diagnosed at later stages, they do not survive for long, irrespective of the best treatment they may get. Lack of awareness and screening for breast cancer are significant contributors for the relatively late stage of the disease presentation in India.

It is crucial for women to be aware about breast health and its symptoms such as painless palpable lumps in the breasts or underarms, nipple inversion, spontaneous bloody or clear nipple discharge, change in size of breast or skin dimpling. Typically, there is no pain associated with breast cancer. Therefore, women often do not realise these symptoms until it is too late.

So, if a woman experiences any of the above symptoms, she should immediately consult her physician and undergo a diagnostic mammogram, which is a specialised X-ray of the breasts. If the mammogram is abnormal, the radiologist will recommend a breast ultrasound for further characterisation of the mammographic abnormality, followed by imaging guided breast biopsy for accurate pathology diagnosis of breast cancer or in simple words confirming the diagnosis of breast cancer.

## **Advanced treatments**

Pathology diagnosis or tissue diagnosis plays a crucial role in diagnosis and management of breast cancer. There are several types of breast biopsy techniques such as Fine Needle Aspiration Biopsy, Trucut or Core

Needle Biopsy and Vacuum Assisted Biopsy. The selection of the biopsy technique depends on the availability of resources and the characteristics of the breast lesion.

Apart from the conventional methods of tissue sampling, Vacuum Assisted Biopsy is a newer technique that is slowly gaining momentum in clinical practice. It is based on vacuum technology where, with a single entry, the device not only cuts through the targeted point in the lesion but also part of the lesion surrounding the targeted area by virtue of its ability to suck in and cut through a zone around the target. This ensures a bigger sample and hence accurate and timely diagnosis.

Vacuum Assisted Biopsy is indicated for biopsy of indeterminate or suspicious micro calcifications seen on a mammogram, complex solid cystic masses seen on ultrasound and suspicious lesions seen on breast MRI, which are occult on mammogram and ultrasound. Thus, the procedure is compatible with all modalities offering a diverse choice to physicians for better diagnosis.

Another advantage of the method is its ability to conduct minimally invasive removal of benign breast lumps on an outpatient basis, saving the patient unnecessary scarring or the trauma of going through a surgery. Another advancement in the treatment of breast cancer that we have seen over the last decade is the revolution in surgical management. In the olden days, if a woman was diagnosed with breast cancer, irrespective of the stage of the cancer, she would have to undergo mastectomy, i.e. surgical removal of the breast.

However, one of the main goals of oncologists today is to conserve as much healthy breast tissue as possible for a patient diagnosed with stage 1 or stage 2 breast cancer. To address this, two groundbreaking technologies have recently been introduced in India. One is the Breast Tissue Marker and the second is the Hook Wire Localisation Needle.

The Breast Tissue Marker is small – about the size of a sesame seed – and is made of titanium, a biocompatible metal. The marker is placed at the site of the lesion from where imaging guided biopsy samples have been obtained.

The purpose of the marker is to precisely identify the location of the cancerous lesion. These markers are not only identified on mammogram by virtue of their radio opacity but also have a permanent ultrasound visibility. Therefore, stage 1 and stage 2 breast cancers can be identified. This also has a great utility in locally advanced breast cancers. Your physician will try to shrink the tumor around the marker to the maximum possible extent with the help of pre-operative chemotherapy so that minimal healthy breast tissues need to be removed at the time of open surgery.

The marker clips help identify the site of the cancerous lesions in early breast cancer as well as post chemotherapy residual disease. Once the marker clips are identified on imaging, a pre-operative hook wire is placed at the site pre-operative planning, such that the oncosurgeon is able to conserve maximum healthy breast tissue with good cosmetic outcome at the time of open surgery.

These are exciting times with state of the art technology being available for diagnosis and management of breast cancer patients in India. The earlier we start applying these technologies in clinical practice, the better the outcome we will see in the long run. One cannot underestimate the value of timely and accurate diagnosis for women with breast cancer. Early diagnosis is the only way to complete cure resulting in decreased morbidity and mortality. At the end of the day, if you save a woman, you save the entire family.