

Guest Editorial



Dr. Sureshkumar
MD, Radiation Oncology

Pink October

Breast cancer: Risk factors and treatment options

Most of the painful lumps are not breast cancer as most often the breast cancer arises as a painless lump. There are many basic examinations that can help us to differentiate between a benign lump and a malignant lump.

Also, people can self-examine themselves to find any lump, or else, they should have a clinical breast examination done by a doctor in case of further suspicion.

We should be cautious about the lumps that are increasing in size continuously, or if there is any architectural distortion of the breast tissue or any changes in skin surface or nipple retraction or abnormal discharge from nipple. Those are the things we need to be more cautious about. If any patient is having a family history of breast cancer, any lump that comes to their knowledge should be addressed.

Age and family history (genetics) are also critical factors for cancerous lumps. People above 40 years should be more cautious of the lump because hormonal changes in them almost cease by then. Whereas people between 20-40 years should get the lump examined regularly for the increase in size and for any change in pain. Periodical check-up is important as it sometimes takes very little time for the benign lump to take the form of a malignant lesion.

If a mother had cancer and her child also grows in the same environment with unknown confounding factor would be a causative agent for the child also. Doctors can study BRCA genes to assess the inherited risk of breast cancer. Some people inherit mutations in the BRCA genes that help in finding the risk of cancer.

Our routine food habits have changed a lot over years and many foods are found containing oestrogen that causes early puberty in girls and changes the growth pattern for boy's also which can also be attributed to breast cancer.

So nowadays, things are being getting changed and the same environment which changes our physical health may be a triggering factor for breast cancer.

People with a family history of breast cancer may go for any imaging modalities, preferably mammogram test, or maybe fine needle aspiration cytology to confirm the diagnosis. The major characteristics for a good cancer screening tool is that it should be applicable to a mass population, shouldn't have a major side effect, and also pick up the lesion early. Mammogram possesses all these characteristics.



The Medical **Bulletin**

Mammogram is being considered to be a very highly sensitive imaging test for a breast cancer diagnosis. They are graded in BI-RADS, in which six grades are given. Grades above three indicate abnormality. If a person is having a lump, the lump can invite calcifications within it. So even a small (e.g- one centimetre lump) that cannot be felt by the patient can have calcifications. So the cancer cells acquire calcifications within the tumor and these calcifications are picked up by a mammogram. That is the main principle behind mammogram.

As per the American Cancer Society guidelines, after 40 years, every year the females should undergo a mammogram test throughout their lifetime. Nowadays, an ultrasound combined with the MRI with high specificity is being advised to go for early diagnosis of the lesion in early ages.

Most of the cancer treatments involve surgery. The main part of breast cancer is surgery if it is diagnosed at an early stage or, it will involve chemotherapy and radiation. Many chemotherapy drugs impact the ovaries, and may cause infertility or influence the growth of the fetus. So, the patients are generally advised to go for active breast cancer treatment for two years and then opt for further plans like infertility treatment and pregnancy. But for active two years, one should be preferring for treatment only.

In case of an early lesion (less than 2cm), a complete removal of the breast is not required. Just we can remove the two centimeter maybe we can give some margins as indicated- just a lumpectomy (removing the lump) will do. A breast conservation surgery is done in that case and the lump cavity is radiated after surgery to reduce the chances of resurfacing the disease locally. A local recurrence or distant metastasis is also prevented. But if it has reached the second stage, the patient should go for complete breast removal. Even after removal of breast, there are chances that it can grow anywhere in the body. Therefore chemotherapy is needed for breast cancer patients.

With recent advances chemotherapy have been formulated with minimal side effects. Adding radiation to the chest wall and axilla have also been made easy and more advanced with high precision radiation techniques like IMRT that causes less or minimal side effects to adjacent organs like lung or heart.

With all these advent and screening techniques that are easily available we can win over breast cancer.