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Case Report

Early case of breast cancer diagnosed through cancer screening out-patient department

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ABSTRACT

Breast cancer is the most common malignancy among women worldwide. In addition to being the most prevalent, breast cancer also kills more women from cancer than any other type. It has now overtaken lung cancer as the leading cause of cancer incidence globally in 2020, with approximately 2.3 million new cases, accounting for 11.7% of total cancer cases. As per the cancer registry report by NCDIR, In India, the majority of breast cancer cases are identified at an advanced stage. Here, we'd like to talk about a breast cancer case that was diagnosed early in our hospital through the cancer screening out-patient department (OPD) running within the institute.

Keywords: Cancer screening, Breast cancer screening, Mammography, Breast cancer, Early diagnosed

INTRODUCTION

In 2020, there were 2.3 million women diagnosed with breast cancer and 685,000 women died globally due to the same.[1] By the end of 2020, 7.8 million women had been diagnosed with breast cancer over the past five years, making it the most prevalent cancer in the world.[2] Improvements in survival among breast cancer cases began in the 1980s in countries with early detection programmes combined with different available diagnostic as well as treatment modes. As per the cancer registry report by NCDIR, In India, the majority of breast cancer cases are identified at an advanced stage.[3] Among breast cancer, Invasive ductal carcinoma is the most common morphology, representing roughly 80% of all breast cancer cases. It starts from the milk ducts and spreads to the surrounding tissue. When treated and detected early, invasive ductal carcinoma has a high survival rate.

The Gujarat Cancer and Research Institute, state cancer institute in Gujarat state has started cancer screening OPD. In this OPD cancer patient's relative and other asymptomatic patients are invited to take benefit for cancer screening services like clinical examination, free mammography and free cervical smears. This case report is of a breast cancer case which was identified in early stage through cancer screening initiative of the institute.

CASE REPORT

We present the case of a 48-year old female represented with one-year history of painless lump on right breast, which was gradually increasing in size. She had no family history of cancer. There were no prominent nipple changes. Patient does not have any past medical history and was not taking any medication. Patient was multiparous and pre-menopausal. She started her menses at age 12 and had her first child at age 21. She does not have any history of tobacco smoking or tobacco chewing and for alcohol. Patient came to our hospital with her husband for his regular check-up (who was known case of oligodendroglioma), where she was advised to undergo check-up for cancer screening at our cancer screening OPD.

Clinical breast examination was done at cancer screening OPD, in which a lump was noted. Mammography was done, which was complementing clinical examination and showed malignant mass lesion of 6×4 cm in upper inner quadrant of right breast along with fibro adenoma and few fibro adenomas involving left breast as well, after which biopsy was suggested. Patient was delayed to take further investigation due to some personal reasons and was not able to come. We took follow up and then patient came for the further investigation. After that Biopsy was done which showed small fragments of tumour, invasive ductal carcinoma, NST grade: II focal necrosis and extra cellular mucin present (Figure 1). Clinically this was classified as localised mass. All CBC and blood chemistry reports were within normal limits Chest radiograph was normal. Blood sugar and other serology were also in normal range. After which patient was advised for mastectomy on right breast during which few blue nodes were dissected and mastectomy was done. Post operatively patient is being followed regularly and is observed to be cancer free and healthy. Patient was given six cycles of chemotherapy which include combination of medicines like docetaxel, trastuzumab, cyclophosphamide, and doxorubicin. There were no palpable abnormalities in the left breast. The remainder of the physical examination is unremarkable.

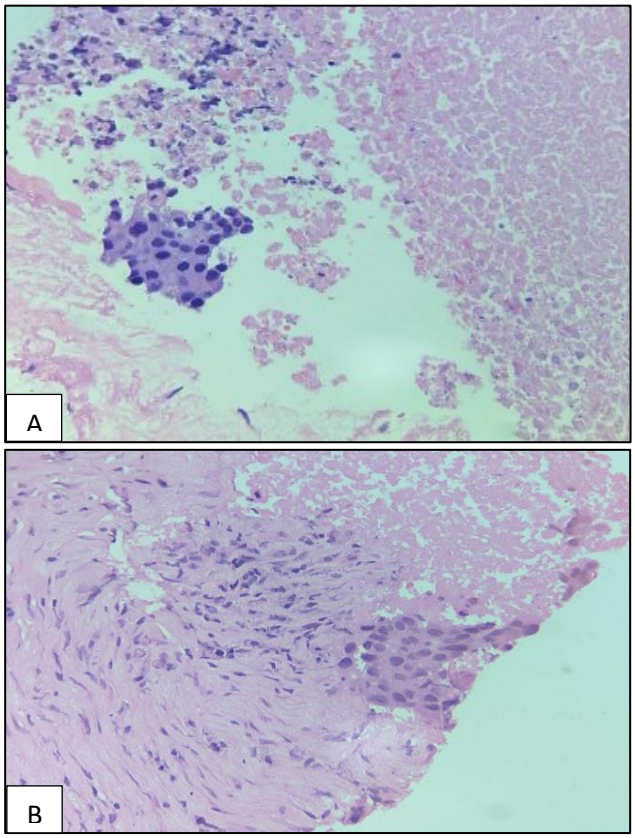

Figure 1 (A and B): Histo-pathology slide of biopsy tissue. Scanty tumour tissue with invasive ductal carcinoma and necrosis. Small fragments of tumour, invasive ductal carcinoma, NST grade 2, focal necrosis.

DISCUSSION

Currently there is no specific way to prevent breast cancer, the only primary prevention model is to have preventive mastectomy and chemoprevention, however it has very limited applications and so we have to rely more on secondary prevention model like early detection and treatment.[4] Screening tests such as mammography and sonography of breast can identify very small or very slowly growing cancers. A recent study from Mumbai has reported that clinical breast examination conducted every 2 years by primary health workers significantly down staged breast cancer at diagnosis and led to significant 15% reduction in breast cancer mortality overall (but a significant reduction of nearly 30% in mortality in women aged ≥50).[5] Similar finding was found in a meta-analysis done by Nelson et al which showed significant effectiveness of breast cancer screening for an average risk woman and benefits in reduction of breast cancer specific mortality in respect to age.[6] In a study done by Ullah et al they have showed that only 15% females were aware about age related and life time risk of getting breast cancer which shows a strong need to drive breast cancer awareness campaigns and to create facilities for mammography test and cancer screening.[7] In the 1960s, the HIP study showed that the combination of mammography and clinical breast examination by trained surgeons led to a reduction in breast cancer mortality.[8] In that study, higher proportion of breast cancers were detected through the clinical examination than through mammography; this was especially true for the women under 50 years of age.[8] It is important to emphasize that clinical breast examination should be performed if symptoms is present before further imaging or other investigations are sought. A clinical breast examination is a very inexpensive test that can improve the detection of breast cancer. Patients with breast symptoms should undergo clinical breast examination. In addition, clinical breast examination should be a part of routine periodic screening, especially for women older than 35 years, women at medium and high risk, and women with a history of breast cancer. In our case report we have presented a case of breast cancer which was diagnosed in early stage through cancer screening OPD with the help of clinical breast examination and mammography and has received good surgical outcome with better prognosis.

CONCLUSION

Early detection of cancer greatly increases the chances for successful treatment. Two components of early identification of cancer are early detection and screening. Cancer screening OPD is an easy, low cost solution and scalable model for suspecting cancers at early stage, which can be easily replicated to all regional cancer centres as well as district hospital and medical college level. The primary objective of this OPD is to promote cancer awareness, cancer screening and early detection of cancer also all these screened patients are being followed to take further treatment. Hence, with the help of clinical

breast examination and mammography done at our cancer screening OPD, an early breast cancer case was diagnosed and treated with good outcome.

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