Case study

INVASIVE DUCTAL CARCINOMA IN NIPPLE AREOLA COMPLEX PRESENTING AS NIPPLE ULCER: A CASE REPORT

ABSTRACT:

INTRODUCTION:

Invasive breast cancer deriving from the lactiferous duct and lobule that develops in the nipple is extremely rare, except in Paget's disease and skin cancer. Invasive ductal carcinoma (IDC), also called infiltrating ductal carcinoma, is the most common type of breast cancer. About 75% of all breast cancers are IDC, according to the American Cancer Society. Invasive means the cancer has spread into surrounding breast tissues. Ductal means the cancer started in the lactiferous ducts, the tubes that carry milk from the lobules to the nipple.

CASE PRESENTATION:

42 year old female present with complaint of ulcer over upper outer quadrant of the left breast and nipple areola complex 6 month back.

DISCUSSION:

Invasive breast cancer deriving from the lactiferous duct and lobule that develops in the nipple is extremely rare, except in Paget's disease and skin cancer.

CONCLUSION:

Invasive ductal carcinoma with skin ulcer without paget's disease is very rare.This can be diagnosed by tissue biopsy, mammography and histopathological examination.

Key words: invasive ductal cancer ; MRM

INTRODUCTION:

Invasive ductal carcinoma (IDC), also called infiltrating ductal carcinoma, is the most common type of breast cancer. About 75% of all breast cancers are IDC, according to the American Cancer Society. Invasive means the cancer has spread into surrounding breast tissues. Ductal means the cancer started in the lactiferous ducts, the tubes that carry milk from the lobules to the nipple. Carcinoma refers to any cancer that begins in the skin or other tissues that cover internal organs, such as breast tissue. The American Cancer Society estimates about 287,850 new cases of invasive breast cancer to be diagnosed in women in 2022, most of which are expected to IDC. Risk factor (1)Modifiable risk factors :obesity: BMI>30,Parity: increased risk in nulliparous women or first pregnancy after 35 years of age, Late age at first pregnancy,>10 years use HRT, Radiation exposure,(2)Non modifiable risk factors :Ethnicity: American white, African American, Sex: female ,Family history of breast cancer: first degree relative (mother, sister, daughter),Genetics:BRCA1 and BRCA2 mutations , Early menarche (<12 years),Late menopause(>55 years),Benign breast disorder (epitheliosis),High fat diet

Patient may present with complain of swelling of all or part of the breast skin irritation skin dimpling, sometimes looking like an orange peel breast or nipple pain nipple turning inward (retraction) nipple discharge, other than breast milk redness, scaliness, or thickening of the nipple or breast skin a lump or swelling in the underarm.

PATIENT PRESENTATION

A 42 year old,Hindu married female presented with complain of ulcer over left breast and nipple areola complex 6 months back for which patient took oral antibiotics and the ulcer healed in 4 days.Again after 14 days patient developed ulcer at the same site.Patient has taken oral antibiotics but ulcer has not healed.Truecut biopsy is s/o invasive ductual carcinoma .Patient had taken 8 cycles

of chemotherapy Adriamycin+Cyclophosphamide+Taxel. After which left breast Modified Radical Mastectomy has been done.

CLINICAL FINDINGS:

The patient was vitally stable.

Local examination: Approx 1x1cm2 healed scar present over the upper outer quadrant left breast and nipple areola complex.

INVESTIGATIONS:

All routine blood investigation were done and found to be normal.

Investigation done before chemotherapy

Mammography: s/o changes of fibroadenosis in both breasts,marked vascularity seen involving left nipple at the site of ulcer,BIRADS category IV.

Tissue biopsy : s/o invasive ductal carcinoma.

Ct head, neck, thorax, abdomen and pelvis: s/o left nipple areolar skin depression, however no evidence of any definitive enhancing mass lesion seen.

Immunohistochemistry: s/o ER(EP1):negative,PR(EP2):negative, Her2(EP3):Positive(3+).

Investigation done after MRM

Histopath: s/o invasive ductal carcinoma

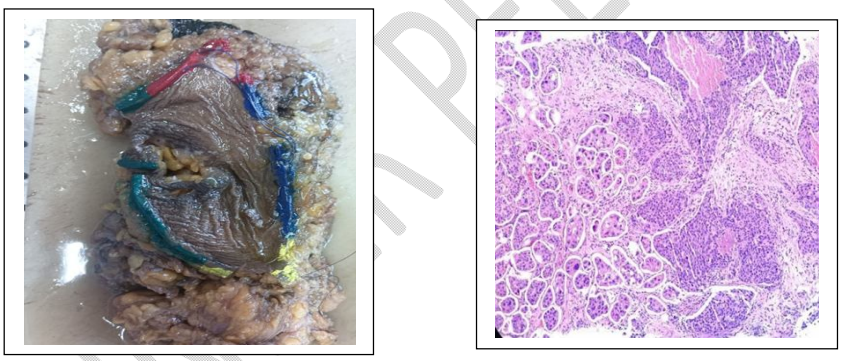

Fig. 1. Investigation done before chemotherapy

Immunohistochemistry: s/o ER(EP1):negative,PR(EP2):negative, Her2(EP3):Positive(3+).

THERAPEUTIC INTERVENTION:

Patient has taken 8 cycles of Neoadjuvant chemotherapy (adriamycin+ cyclophosphamide+ taxel) after which modified radical mastectomy was done.

DISCUSSION:

Invasive breast cancer deriving from the lactiferous duct and lobule that develops in the nipple is extremely rare, except in Paget's disease and skin cancer. The majority of breast cancer develops from terminal duct lobular units and the cancer rarely develops in the nipple, which is the farthest from the lobules.Several studies showed that the tumor grade, size, and stage, tumor-nipple distance, and HER2 positivity were significant predictors of occult nipple involvement in breast cancer. Location of the tumor has an influence on nipple involvement.The incidence of nipple recurrence is higher for tumors located at the central or retroareolar area compared with the other 4 quadrants of the breast . Therefore, the decision to perform breast conserving surgical procedures should not be based on the tumor location alone, but also on the size and stage of the cancer as well as the immunohistochemistry results and HER2 status. At present, there are no established criteria that clearly classify local recurrences within the breast as either true recurrences or second cancers (metachronal ipsilateral breast cancers). In addition, an increase in the number of prophylactic nipple-sparing mastectomies is expected in the current situation where hereditary breast and ovarian cancer syndrome surveillance is conducted in routine clinical practice.Several contrived surgical procedures to conserve the nipple, such as a procedure of hollowing out the mammary gland in the nipple, have been shown. However, there is no unified view regarding long-term prognoses.It is important to encourage patients to visit a medical organization immediately when experiencing nipple swelling or skin changes, such as redness, exudative crust, pigmentation, and itchiness.

CONCLUSION:

Invasive breast cancer deriving from the lactiferous duct and lobule that develops in the nipple is extremely rare, except in Paget's disease and skin cancer. The majority of breast cancer develops from terminal duct lobular units and the cancer rarely develops in the nipple, which is the farthest from the lobules. Invasive ductal carcinoma with skin ulcer without paget's disease is very rare .This can be diagnosed by tissue biopsy, mammography, histopathology.

CONSENT:

Consent has been taken from the patients.

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