



CASE STUDY

INFLAMMATORY BREAST CARCINOMA OBSCURING THE PRIMARY DUODENAL
ADENOCARCINOMA – A CASE REPORT

Hemanth Sureshwara Ghalige, Karthik, K., Babitha, N., Birkumar Sharma, M. and
Sudhir Chandra Singh, Th.

Department of Surgery, Regional Institute of Medical Sciences, Imphal, Manipur, India – 795004

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ABSTRACT

The entity of double carcinoma in a single patient of different pathologies is not encountered commonly in clinical practice, especially in Indian subcontinent. Lack of medical insurance and poverty often compels treating surgeons To use minimum of diagnostic tests for the workup of malignancies. This leads to under diagnosis and reporting of such occurrences. Here we present a case report of 60 year old female with a painful swelling of left breast and a left lower neck swelling. On examination there was warmth, oedema with peau d' orange appearance in more than one third of breast with enlarged solitary axillary lymph node and multiple left supraclavicular lymph nodes. Fine needle aspiration cytology of lymph nodes confirmed left inflammatory breast carcinoma with metastasis. Computerised tomography scan of chest confirmed the malignant changes in breast parenchyma, pectoralis major as well as axillary lymph node. Our protocol of performing oesophago-gastro-duodenoscopy in cases with Virchow's node involvement unearthed the obscure asymptomatic primary duodenal adenocarcinoma. Considering the grave prognosis, the patient was considered for palliation with oral Capecitabine. The rarity of such associations together with non-standardised protocol in the metastatic workup in the subcontinent makes us report such an entity to sensitize the clinicians.

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INTRODUCTION

India is a sub-continent with wide ethnic, cultural, religious, and economic diversity and variation in the health care infrastructure. The health care facility pattern is heterogeneous, with numerous regions where the benefits of the awareness, early diagnosis, and multidisciplinary treatment programmes have not reached. Manipur, a north-eastern state of India with a population of 25.7 lakhs (census 2011) has only 2 tertiary care centres with no national and institutional screening programme for breast diseases. Hence we often encounter the cases in either late stage or mismanaged as in our case. We here report a case of inflammatory breast cancer with silent duodenal adenocarcinoma.

Case report

A 60 year-old female hailing from a hilly area of Manipur presented with complaints of inability to lift left upper limb for 3 months, which was associated with swelling of left upper limb for which she was taking treatment from a local quack for last 45 days. She also had pain in left shoulder, dull aching in character, increased on movement and reduced on medication. Her sleep was disturbed due to pain.

She also noticed multiple swellings on the left side of the neck for 2 months. There was no discharge from the swelling. She also noticed enlargement of left breast following massage therapy, which was gradually progressive. She didn't feel any discrete lump in left breast. No history of discharge from nipple. There was no history of fever, swelling in axilla, trauma to chest. No history of pain abdomen or backache. No loss of appetite, no weight loss. No alteration in bowel or bladder habits. Patient had pulmonary tuberculosis 15 years back for which she had completed full course of anti-tubercular therapy. The patient was post-menopausal with no previous history of menstrual irregularities. No history of radiation or substance abuse. All family members were apparently healthy. On examination, Patient was well built, obese and hypertensive (140/90mmHg). She had no pallor but pitting oedema in both lower limbs and left upper limb. Multiple discrete left supraclavicular lymph nodes were palpable with signs of inflammation.

Examination of left breast showed diffuse enlargement (Fig 1). There was no redness of skin. Peau d' orange appearance was seen. Breast was warm to touch but there was no discrete lump. Nipple-areola complex was normal. A solitary node was palpable in left axilla in pectoral group. Right breast and axilla were normal.

*Corresponding author: Hemanth Sureshwara Ghalige
Ghalige, Junior Resident, Department of Surgery, Regional Institute of
Medical Sciences, Imphal, Manipur, India – 795004.



Figure 1. Clinical photograph depicting the inflamed left breast with multiple left supraclavicular lymphadenopathy

On abdominal examination, liver was just palpable, firm and non-tender. There was no ascites. Other systems were normal. On investigation, leucocytosis ($11500/\text{mm}^3$), neutrophilia (81%) with mild hypo-albuminemia ($3.1\text{g}/\text{mm}^3$) and normal serum electrolytes were noted. Mammography of left breast showed discrete lesion in sub-areolar region and diffuse enlargement of breast tissue. Ultrasonography(USG) of left breast showed thickening of skin and features of fat necrosis. USG of left axilla showed single inflamed lymph node measuring $3 \times 1\text{cm}^2$. USG of abdomen revealed fatty liver with no features of metastasis. Fine needle aspiration cytology (FNAC) of left supraclavicular and left axillary Lymph nodes revealed features of poorly differentiated metastatic carcinoma (Fig 2).

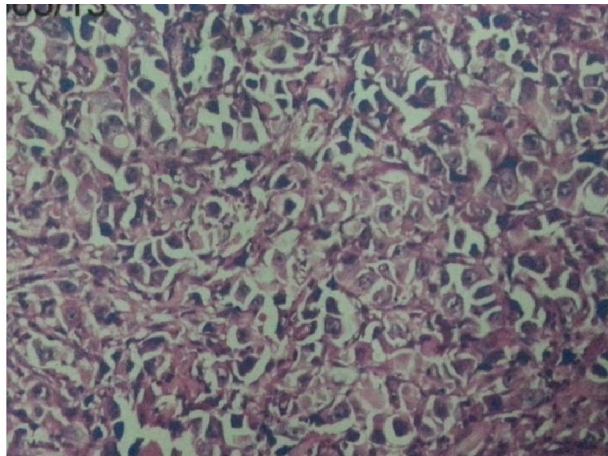


Figure 2. FNAC of left supraclavicular lymph node showing poorly differentiated metastatic carcinoma

FNAC of retro-areolar lesion in left breast revealed anucleated squames. Punch biopsy from peri-areolar skin didn't reveal evidence of lymphatic invasion. Computerized Tomography (CT) of thorax revealed 2 times thickness of the left breast compared to the right with loss of contour of pectoral muscles on the left and left axillary lymph node measuring $29 \times 17\text{mm}^2$ (Fig 3-5). Oesophago-gastro-duodenoscopy (OGD) revealed multiple friable sessile polyps in the 2nd part of duodenum (Fig 6), which on histo-pathological examination showed features of adenocarcinoma.



Figure 3. CT chest showing thickened left breast measuring 83.2mm v/s 45.5mm on right side



Figure 4. CT chest showing thickened Pectoralis major and minor on the left side with loss of contour

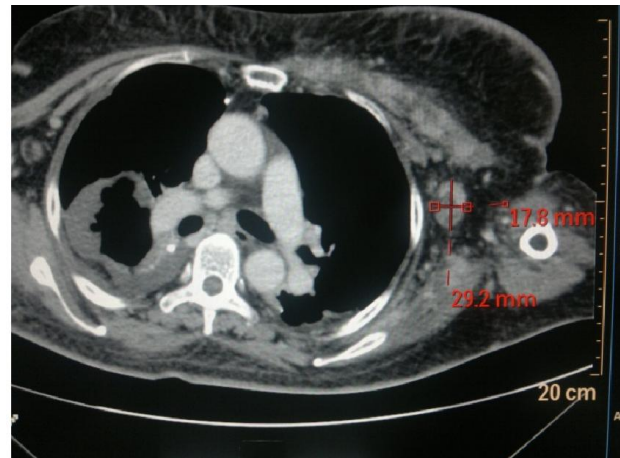


Figure 5. CT chest showing solitary left axillary lymph node measuring $29 \times 17\text{mm}^2$

A working diagnosis of metastatic inflammatory carcinoma of breast with silent adenocarcinoma of duodenum was made and surgical options were discussed with the patient but she opted

for oral chemotherapy. Capecitabine 1000mg twice daily in 6 cycles, each of 21 days with 7 days interval was advised. The patient had marked reduction in breast size and size of supraclavicular and axillary lymph nodes on the left at 2 months follow-up (Fig 7).



Figure 6.OGD showing multiple sessile polyps in 2nd part of duodenum with post-biopsy bleeding



Figure 7. Clinical photograph showing post chemotherapy reduction in left breast size

DISCUSSION

Inflammatory Breast Cancer (IBC) accounts for 2.5% of all breast cancers. (Robertson *et al.*, 2010) Hence the chance of a clinician encountering such rare condition is scarce. In India, breast cancer incidence peaks among women 45–50 years of age. (Nandakumar *et al.*, 2004) In our case the patient was 60 year-old. Robertson FM *et al.* (2010), based on cancer registry at MD Anderson Cancer center, point that majority of patients with IBC had body mass index (BMI) > 30kg/m² with a postmenopausal status and our case belongs to similar categories, suggesting the possible risk factors for IBC. Cox and Cruz (1994) in their case series noted a mean duration of 10 weeks between onset of skin changes and diagnosis of IBC. In our case, the corresponding period was 8 weeks. Population-based breast cancer screening is not recommended

in India due to limited resources and the lack of local statistics on younger women. (Mathew *et al.*, 2002) We also have the same opinion due to non-availability of local statistics and non-uniform literacy rates in Indian subcontinent, especially in the north eastern states. Breast lump was not palpable in our case. Brouwers *et al.* (2008), share the same opinion. Robertson FM noted in his research work that 55-85% patients with IBC had axillary lymph node involvement (Robertson *et al.*, 2010). In our case also axillary lymphadenopathy was noted.

Global skin and trabecular thickening are the most frequent mammographic abnormalities in IBC patients, but are nonspecific, as they can also be associated with mastitis and locally advanced breast cancer (LABC). (Robertson *et al.*, 2010) Dermal lymphatic invasion is considered to be the hallmark of IBC. (Nambi and Tharakaram 1999) Our case had thickening of breast skin on CT with pectoral involvement but there was no dermal lymphatic invasion. Role of de-bulking primary tumor lacks consensus in prolonging survival (Robertson *et al.*, 2010). Hence as per patient's choice oral Capecitabine was initiated in our case. Adenocarcinoma metastatic to the breast presenting as inflammatory mastitis has already been reported by Fulciniti *et al.* (2008) An incidental endoscopic finding of duodenal adenocarcinoma provided a possible etiology for the lymphatic invasion pattern seen in our case.

Conclusion

In spite of a clinical diagnosis of a carcinoma with metastatic supraclavicular lymph node, clinicians should make an effort to rule out primary lesions in other organs namely gastrointestinal, lungs and reproductive organs. Hence we hereby add our experience of primary adenocarcinoma in duodenum presenting atypically as IBC to sensitize clinicians.

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