Acute Abdomen: A Rare Presentation of Breast Cancer

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Authors’ contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

ABSTRACT

With increased awareness, established screening programs and investigating early of symptoms, breast cancer is often detected at early stages. But some present with local and/or distant metastasis. Few have unusual presentations. This case history is of a patient with breast cancer who presented with an acute abdomen, a paraneoplastic syndrome.

Keywords: Breast malignancy; rare presentation; acute abdomen.

1. INTRODUCTION

Breast cancer is the second common cause of cancer and fifth common cause of cancer related deaths [1]. The death rate of breast cancer has reduced due to early detection via screening programs and improved surgical and medical treatment [2]. Early detection of breast cancer remains the best measure for better outcome. Delay between onset of symptoms and initiation of treatment leads to poor survival [3].
Breast cancer can present in variety of ways. Since the dawn of screening programs, significant proportion being diagnosed before the onset of the symptoms. Among those who present with symptoms, most common presentation is breast lump. Also they can present with nipple retraction, indentation or discharge [4]. They can present late with locally advanced diseases and a significant proportion of the patients present with advanced metastatic disease [5].

But rarely the first presentation may be due to the effect of paraneoplastic syndrome.

This case is of a 56 year old woman who presented with acute abdomen which was found to have developed due to trousseau's syndrome leading to superior mesenteric vein thrombosis.

2. CASE REPORT

A 56 year old unmarried nulliparous Sri Lankan female, presented with generalized abdominal pain of 3 days duration which was moderate to severe aching type. There was no radiation. The pain increased with meals. There were no relieving factors. She had reduced bowel opening and stools were black in colour. She vomited few times which was non projectile. There were no urinary symptoms. She did not have any chest pain or shortness of breath. Her appetite was poor but there was no recent loss of weight. Except hypertension there were no significant past medical or surgical history. No family history of malignancy or hematological disorders.

On examination, she was obese (BMI=34.3), in pain, afebrile and not pale. Her abdomen was distended with tenderness and mild rigidity over periumbilical region with normal bowel sounds. There were no free fluid or organomegaly. Hernial orifices were normal and DRE revealed stools with normal colour. Her pulse rate was 78 bpm and BP was 120/80 mmHg. Chest examination revealed B/L equal breath sounds without any added sounds. There was thickened skin with peau-de-range appearance on r/s breast without any palpable lump on both breast.

Initially bowel obstruction was suspected and she was kept nil orally and IV fluids were started. Her full blood count, renal functions, amylase level, PT/INR and APTT were normal. CRP was 345, ESR -26. Stool for occult blood was positive. USS abdomen revealed Mild to moderate free fluid in the abdomen with right side pleural effusion, no evidence of intestinal obstruction. As her abdominal pain continued, a contrast enhanced CT chest, abdomen and pelvis was performed which revealed narrowing of superior mesenteric vein (SMV) suggestive of SMV thrombosis. CT-chest revealed suspicious mass in the right breast with axillary lymph nodes. She was started of antithrombotic therapy with S/C enoxaparin and oral warfarin. A mammography done revealed a BiRADS 5 lesion in right breast. True cut biopsy confirmed an invasive ductal carcinoma.

Her acute abdomen was due to superior mesenteric vein thrombosis, a phenomenon described originally by Armand Trousseau in 1865 associated with visceral malignancies.

Patient was referred to the oncology team for further management after the multi-disciplinary team discussion. She defaulted treatment and passed away two weeks later due to massive pulmonary embolism.
Fig. 2. CC & MLO views showing density asymmetry of which right breast shows more high density tissue. Skin thickening is seen anteriorly and sub areolar region. Small isodense mass in RUQ. Altered architecture in R/axillary lymph node keeping with malignant infiltration. L/breast normal

3. DISCUSSION

Presentation of the breast cancer varies between asymptomatic, typical and rare unexpected presentation. There were some various reports of these rare presentation of breast cancer in the past.

In 2019, Martins Figueiredo L et al. reported a case where a 43 year old previously healthy female, who was investigated for dyspeptic symptoms and constipation was found to have multiple metastatic lesions at colonoscopy [6]. Immunohistochemical profile favored primitive invasive lobular carcinoma of the breast. Although gastrointestinal tract metastases are more frequent in lobular carcinoma of the breast, colonic metastases are a rare occurrence [7].

In 2018, Joana et al. [8] reported a case of 76-year-old woman who underwent cholecystectomy for gallstone disease, where the histological examination revealed a focus of gallbladder metastasis of breast carcinoma in addition to the chronic cholecystitis and gall stones.

In 2017, Andre Lopes et al reported a case of a 58 year old woman presenting with a 1.5 cm lesion on the transition between the right labia minora and majora. The patient was treated with wide vulvar resection and right inguinal lymphadenectomy. Histology revealed grade 3, invasive carcinoma, with tumor characteristics indicating a mammary gland carcinoma and concluded as Mammary gland carcinoma of ectopic tissue in the vulva is an extremely rare occurrence [9].

In 2010, Sadhana et al. [10] reported a case of a 50-year-old female who presented with elevated, finely nodular, indurated skin lesions on left anterior chest wall, axillary region and keloid - like patch on left upper arm. On further examination a breast mass was detected. Fine needle aspiration of all the lesions was performed. Cytodiagnosis was given as infiltrating duct carcinoma of breast with metastatic carcinoma involving left anterior chest wall, axillia and left upper arm.

In our case, the presentation was acute abdominal pain which was due to the Superior mesenteric vein thrombosis in a patient with underlying breast carcinoma due to a rare phenomenon called Trousseau’s syndrome.

In 1865, Armand Trousseau suggested that an occult visceral malignancy could be manifested as unexpected or migratory thrombophlebitis. In 1977, Sack and colleagues revised and extended the term Trousseau's syndrome to include chronic disseminated intravascular coagulopathy associated with microangiopathy, verrucous endocarditis, and arterial emboli in patients with cancer, often occurring with mucin-positive carcinomas through their analysis. In the recent past, the term has been used to various clinical
situations, ranging all the way from these classic descriptions to any kind of coagulopathy occurring in the setting of any kind of malignancy. These many definitions of Trousseau’s syndrome are partly due to the consequence of multiple pathophysiologic mechanisms which apparently contribute to the hypercoagulability associated with malignancy. Even the classic syndrome probably represents a spectrum of disorders, ranging from exaggerated fluid-phased thrombosis dependent on prothrombotic agents such as tissue factor to a platelet- and endothelium-based selectin-dependent microangiopathy associated with mucin-producing carcinomas, along with thrombin and fibrin production and also the recent hypotheses about genetic pathways within tumor cells that might trigger these thrombotic phenomena [11].

Elevated tissue factor (TF) expression by the associated angiogenic endothelium in carcinomas in which the TF is rich, has been reported to be associated with tussaeus syndrome. Activated oncogenes (K-RAS, EGFR, PML-RARA, and MET) or inactivated tumor suppressors (eg, p53 or PTEN) also lead to an induction in TF levels and activity, which is postulated to promote not only hypercoagulability but also tumor aggressiveness and angiogenesis [11].

Regarding how to define Trousseau’s syndrome, it is suggested that the term Trousseau’s syndrome be reserved for situations in which thrombotic problems that cannot be explained by any other obvious factor(s) occur in the setting of either an occult or a recently diagnosed carcinoma [11].

There are few cases reported regarding tussaeus’s syndrome in breast cancer. But there were no cases reported acute abdomen / superior mesenteric vein thrombosis as the presentation of breast carcinoma. So we consider this presentation as a rare presentation of breast cancer.

4. CONCLUSION

Breast cancer which is often detected at early stages. But some present with local and/or distant metastasis. Some cases detected with rare presenting complaints.

This case demonstrate one of the rare way of presentation of breast cancer. With the various ways of presentation of breast cancer, clinicians need to maintain suspicion towards abnormal rare presentations.

CONSENT

As per international standard or university standard written patient consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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