



MYELOID SARCOMA OF THE BREAST-AN UNUSUAL PRESENTATION

Oncology

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ABSTRACT

Hematological malignancies are the most challenging malignancies in terms of management as they require significant support in the form of blood products, strict aseptic conditions etc. Despite the challenge in management, identification of Acute Leukemia is relatively easier due to its classical manifestations like bleeding manifestations, fever. Rare presentations of extramedullary infiltration of Leukemic cells, known as Myeloid Sarcoma, can make the diagnosis difficult, resulting in delay of initiation of treatment. It is imperative to consider Leukemia as differential diagnosis in solid organs having uncommon presentation and behavioural pattern.

KEYWORDS

INTRODUCTION:

Myeloid sarcoma is a rare entity with extramedullary proliferation of Blasts of one or more myeloid lineages. It may present as an isolated tumour or with concurrent Acute Myeloid Leukemia. Diagnosis of this condition may be challenging to clinicians.

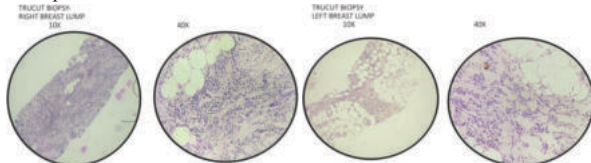
Case Report:

A 50 year old postmenopausal woman presented with bilateral breast masses and swelling of left lower limb, of 1 month duration. On examination, she had bilateral breast masses, multiple subcutaneous nodules over the body and indurated left lower limb. The patient was suspected to have Bilateral Breast carcinoma with lower limb Deep vein thrombosis.



Ultrasound of both breasts revealed of BIRADS III lesions. PET-CT showed metabolic activity in the breast and leg swellings as well as in subcutaneous nodules over the body. Routine blood investigation revealed the following values- Hemoglobin 8.6 g/dl, Leucocyte count 6100 cells/mm³ with 2.9 lakh platelets/ mm³. Peripheral smear was suggestive of Microcytic hypochromic anaemia.

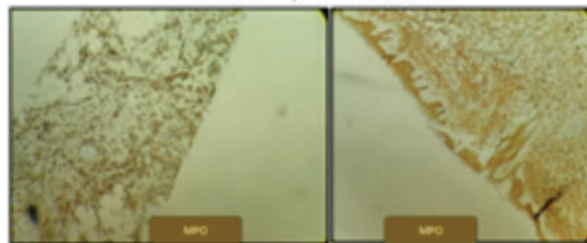
As the biopsy from bilateral breast masses did not show characteristic appearance of Breast malignancy, an IHC panel including Lymphoma panel was applied. The biopsy was positive for LCA, Bcl2 and CD10 and was negative for ER/PR/HER2/CK/CD3/CD20. A diagnosis of Lymphoma was considered and after Bone marrow aspiration, 1 cycle of CHOP regimen was administered to the patient. The lesions were unresponsive to treatment.



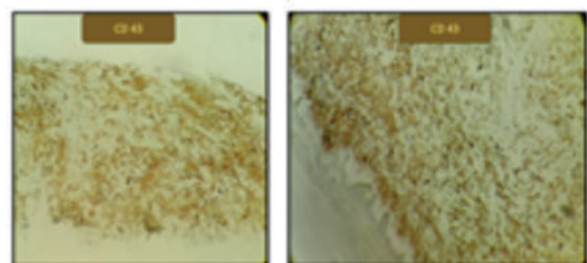
Further IHC study was positive for CD34, CD43, MPO, CD99(focal positive), c-kit and CD68. Based on the aforementioned panel, the patient was diagnosed as Myeloid sarcoma. Bone marrow aspiration and biopsy was done to rule out medullary involvement. Flow cytometry from Bone marrow aspirate confirmed Acute Myeloid

Leukemia (AML) with 50% Blasts. Karyotyping and Cytogenetics could not be done for the patient due to financial constraints.

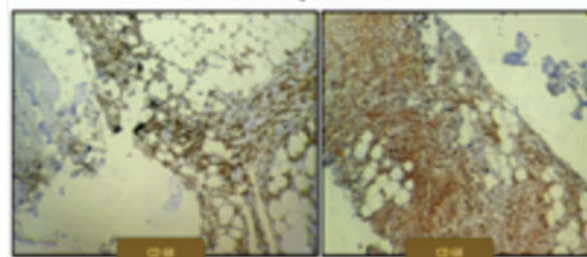
Further IHC markers: In both Breast lump and nodule



Further IHC markers: In both Breast lump and nodule



Further IHC markers: In both Breast lump and nodule



The patient was started on 3+7 Induction chemotherapy of AML for which the lesions were responsive. Post induction Bone marrow assessment showed residual disease. The patient was started on Re-induction, during which her general condition worsened and she succumbed to treatment related neutropenic infection.

CONCLUSION:

When the diagnosis of malignant lesions with uncharacteristic behaviour becomes difficult and challenging, a possibility of Myeloid sarcoma should also be considered to avoid delay in diagnosis and

further management, as Hematological malignancies are acutely life threatening.

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The author declares that they have no conflict of Interest

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