

Breast metastasis of monomorphic synovial sarcoma of right thigh

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Abstract

Metastasis to breast from an extra mammary primary malignancy is extremely rare. We came across a female with metastasis of monomorphic synovial sarcoma (spindle cell tumor) of right thigh to the breast. She presented to us with a rapidly growing monomorphic synovial sarcoma in her right thigh. Patient had to undergo several episodes of wide local excision due to local recurrence of the tumour. One year after her initial presentation she developed a metastatic lesion in the right breast.

Introduction

Breast cancer is the commonest malignancy among females [1]. Majority of these are primary breast cancers, while secondaries to the breast are rare. Most metastatic lesions to the breast originate from primaries in the contra lateral breast [2]. Only in 0.5-2% of cases extra mammary malignancy will cause metastatic lesions in breast [3]. Malignant melanoma, lymphoma, lung cancer, ovarian carcinoma, soft tissue sarcoma, gastrointestinal and genitourinary tumors are the primary malignancies which most frequently metastasize to the breast [4].

Case presentation

Thirty seven year old female at her third trimester of pregnancy presented to us with a rapidly growing lump over the anterior aspect of the right thigh for duration of two months. Fine needle aspiration of the lump revealed a malignant spindle cell tumor and the histological evaluation following a wide local excision of the tumour confirmed the diagnosis. Further immunohistochemical

studies performed on the histological specimen revealed a monomorphic synovial sarcoma. Oncology opinion was to conduct therapeutic chemoradiation, which was refused by the patient. Thus, she had to undergo multiple episodes of wide local excisions in order to control the tumour spread. One year after her initial diagnosis she developed a lump over the upper outer quadrant of her right breast. It was a clinically benign, well circumscribed lump measuring about 2×2cm. The lump was not attached to the skin or the underlying structures. Examination of axilla and of the other breast was normal. Ultrasound scan showed features of a benign lump with normal contralateral breast and axilla. Excision biopsy of the breast lump was done and the histology revealed a metastasis from the monomorphic synovial sarcoma of the thigh.

Discussion

Synovial sarcoma was initially described by Simon in 1865 [5]. It has an annual incidence of 2.5 per 100,000. It accounts for approximately 8% of all human soft tissue sarcomas [6], and commonly occurs in children and young adults with a male to female ratio of 1.2:1 [7]. Metastatic lesions of the breast only account for 0.5-2% of all breast malignant tumors. Characteristics of metastatic breast tumors usually include presence in the superficial tissues and well-defined multinodular masses in the upper outer quadrant of the breast. The absence of calcification on radiological examination, such as mammography, is an additional suggestive feature [8].

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Key Points:

- Metastasis to breast from an extra mammary primary malignancy is extremely rare.
 - Rare possibility of metastatic nodule in the breast should be considered in the presence of other primary cancer.
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