

Leiomyosarcoma Metastatic To Breast

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Abstract

Metastatic tumors to breast from extramammary primary tumors are uncommon. A case of leiomyosarcoma metastatic to breast diagnosed by Fine Needle Aspiration Cytology is presented.

Key Words

Breast Metastasis, Leiomyosarcoma, Tumor

Introduction

Metastatic neoplasms to breast are rare, constituting approximately 1.2 to 2.5% of all malignant mammary tumours (1,2,3). Apart from haematopoietic neoplasms, malignant melanoma and lung carcinomas are commonly reported primary tumours to metastasize to (1,2,3,4). To the best of our knowledge no case has been reported of leiomyosarcoma to breast.

FNAC has been utilized for diagnosis of neoplasms metastatic to breast (1,2,5,6,7) thus avoiding open surgical procedure. We present clinicopathological features of a case of leiomyosarcoma metastasizing to breast.

Case Report

A female patient aged 60 years presented with a breast mass in left lower outer quadrant 4 cms diameters in size. She was known case of leiomyosarcoma of uterus prior to development of breast nodule. FNAC was performed using 21 gauge needle with 20 ml disposable syringe fitted in Franzen handle. Material was expressed onto glass slides and direct smears were air dried and stained by May Grunwald Giemsa stain and others were fixed in 95% ethyl alcohol and stained by Papanicolaou

stain. On microscopy, the smears were highly cellular with individually scattered and clusters of cells showing palisading of spindle cells having blunt ends, open chromatin and prominent nucleoli with a few mitotic figures and bizarre nuclei.

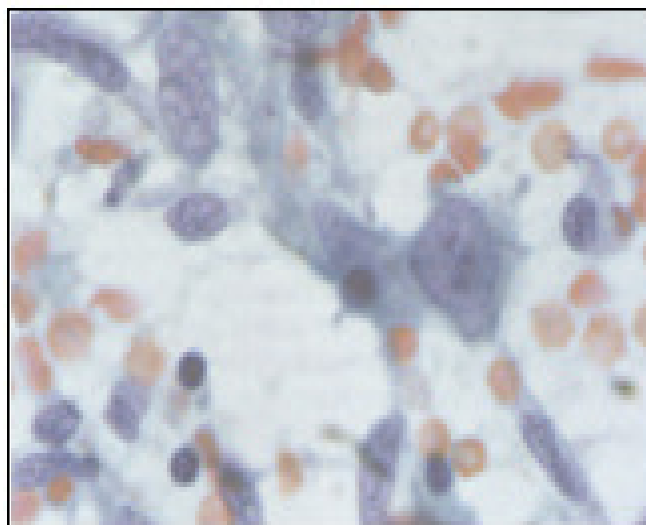


Fig 1. FNAC of Leiomyosarcoma Metastatic to Breast (Pap x 100)

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Discussion

Metastasis to breast are uncommon. Spread from a primary contralateral mammary tumour is most common form of metastasis followed by lymphomas, melanomas and pulmonary carcinomas. FNAC is a useful procedure for evaluation of both primary and metastatic tumours (1,2,5,6,7). A cytologic diagnosis of metastatic disease can replace open surgical procedure.

Although cases of metastatic leiomyosarcoma can be challenging on FNAC, cytologic features of malignant phylloides tumour show cellular smears with predominance of fibroblastoid spindle cells depicting nuclear atypia and pleomorphism simulating spindle cells sarcoma. FNAC of leiomyosarcoma shows spindle cells in parallel bundles, eosinophilic cytoplasm, indistinct cell borders, cigar shaped blunt nuclei, pleomorphism and abnormal nuclear chromatin alongwith mitosis. Presence of necrosis also favours malignancy. Knowledge of prior history of leiomyosarcoma is crucial.

Although Primary leiomyosarcoma of breast is reported (8,9,10) but to the best of our knowledge, metatatic leiomyosarcoma of breast has not been reported very rarely (11) from a uterine leiomyosarcoma.

FNAC is appropriate for a definitive diagnosis in patients with metastatic mammary lesions and provides a diagnosis with reliability and accuracy thus avoiding unnecessary mastectomy.

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