

Widespread subcutaneous metastases in a patient with breast cancer: Evaluation with fluoro deoxy-glucose positron emission tomography-computed tomography

Sir,

A 47-year-old female a known case of breast cancer who was previously treated with surgery, chemotherapy and radiation for breast cancer (pT2N0M0 at the time of initial surgery) presented with multiple tiny nodular lesions in the abdominal wall and in the parotid regions. The lesions measured approximately 5 mm in size and were non-tender. Excision biopsy of one of the lesions confirmed metastatic carcinoma with histological features of breast cancer. A whole body 18 fluoride – fluorodeoxyglucose (18F-FDG) positron emission tomography-computed tomography (PET-CT) [Figure 1] was ordered to evaluate the extent of disease. FDG PET-CT was performed 75 min after intravenous injection of 300 MBq of FDG [Figure 1]. The study revealed extensive FDG avid nodular lesions throughout

the subcutaneous tissue the body. All the lesions were less than 1 cm in size. In addition, FDG PET-CT identified multiple lung nodules and bone marrow lesions indicating metastases. The patient is being treated with chemotherapy.

Cutaneous metastases from internal malignancies account for 0.7% and 9% of all metastases.^[1] It may be the first symptom in 7% of the patients with cancer.^[1] Among all malignancies, the highest incidence of cutaneous metastasis is seen in breast cancer.^[1] Cutaneous metastases have been previously described from gall bladder carcinoma,^[2] pancreas,^[3] colorectal cancer,^[4] uterine leiomyosarcoma,^[5] renal cell carcinoma.^[6] Utility of FDG PET/CT in identifying and evaluating cutaneous and subcutaneous metastases have been previously described.^[4,7-10] Though cutaneous metastases may be the presenting symptom it usually represents advanced disease and poor prognosis. FDG PET-CT can potentially be used as a one-stop-shop imaging modality in patients with cutaneous/subcutaneous metastases from FDG avid primary malignancies. FDG PET-CT may also find a role in evaluating the response of these lesions to treatment.

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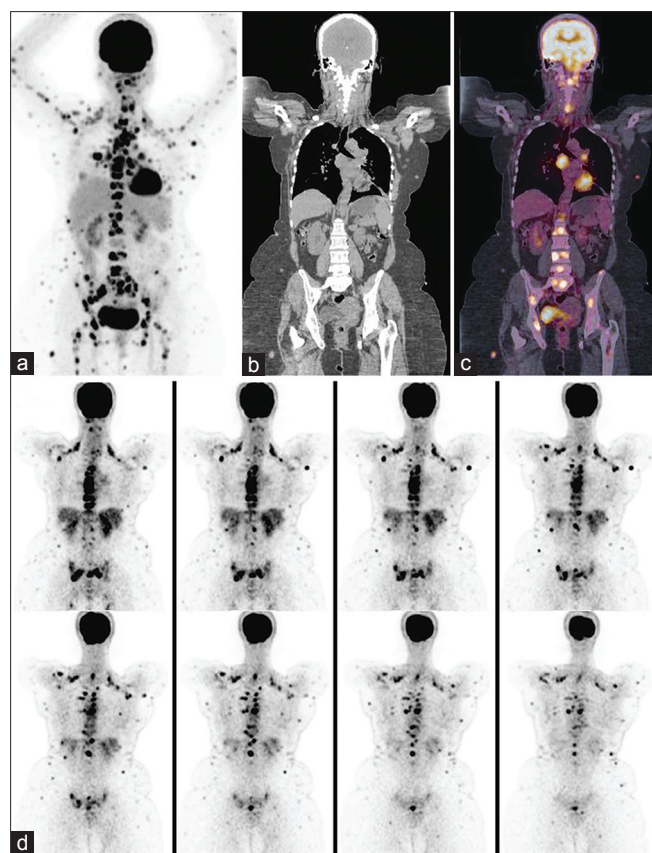


Figure 1: Maximum intensity projection image (a) of the whole body positron emission tomography-computed tomography (WB PET-CT), Coronal WB CT (b), Coronal WB PET. (c) and serial coronal slices of PET (d) reveal extensive FDG avid nodular lesions throughout the subcutaneous tissue the body. In addition, multiple lesions are also noted in the entire bone marrow. A few FDG avid lung nodules were also noted

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