

Seminal vesicle metastasis from carcinoma lung: A very unusual metastatic site detected with ^{18}F -Fluorodeoxyglucose positron emission tomography/computed tomography

Sir,

A 59-year-old male presented with backache for last 1-month. He was a chronic smoker. There was no other significant history. Radiographs of the lumbar spine revealed lytic-sclerotic (predominantly sclerotic) lesions in lumbar vertebrae and pelvic bones, suggestive of metastases. The patient underwent ^{18}F -Fluorodeoxyglucose (^{18}F -FDG) contrast enhanced positron emission tomography/computed tomography (PET/CT) for localization of the primary malignancy [Figure 1a-e]. Maximum intensity projection PET image showed multiple focal areas of ^{18}F -FDG uptake in the head and neck, thorax, abdomen and pelvis (a). Contrast-enhanced PET/CT image of the thorax showed a nodular ^{18}F -FDG avid lesion (SUVmax-5.6) in left lung upper lobe, measuring 1.7 cm \times 1.5 cm and showing pleural tagging (b, arrow). Also noted were multiple ^{18}F -FDG avid mediastinal nodes (b, broken arrows). The prostate gland was normal in size with no definite focal ^{18}F -FDG uptake or space occupying lesion (c, arrowhead). Interestingly, an enhancing space occupying lesion (d, e, bold arrow) measuring 1.3 cm \times 0.8 cm in size was seen in left seminal vesicle showing increased ^{18}F -FDG uptake (SUVmax-5.1). Also noted were multiple ^{18}F -FDG avid skeletal metastases (c-e, broken arrows). Based on PET/CT findings a diagnosis of primary malignancy of left lung with

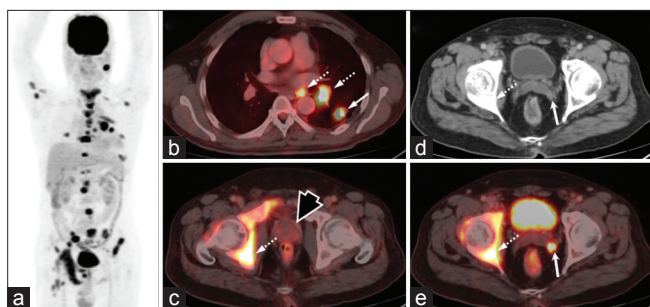


Figure 1: Maximum intensity projection positron emission tomography (PET) image showing multiple focal areas of ^{18}F -Fluorodeoxyglucose (^{18}F -FDG) uptake in the head and neck, thorax, abdomen and pelvis (a). Contrast enhanced PET/computed tomography image of the thorax showed a nodular ^{18}F -FDG avid lesion (SUVmax-5.6) in left lung upper lobe, measuring 1.7 cm \times 1.5 cm and showing pleural tagging (b, arrow), along with multiple ^{18}F -FDG avid mediastinal nodes (b, broken arrows). Prostate gland was normal in size with no definite focal ^{18}F -FDG uptake or space occupying lesion (c, arrowhead). Also noted was an enhancing space occupying lesion (d, e, bold arrow) measuring 1.3 cm \times 0.8 cm in size in left seminal vesicle showing increased ^{18}F -FDG uptake (SUVmax-5.1). Also noted were multiple ^{18}F -FDG avid skeletal lesions (c-e, broken arrows)

nodal, bone and seminal vesicle metastases was made. Computed tomography guided fine needle aspiration cytology from the lung lesion confirmed primary adenocarcinoma of the lung. However, since seminal vesicle involvement is common in prostate cancer, and unheard of in lung cancer further evaluation with serum prostate-specific antigen and transrectal ultrasound was done; both turned out to be normal. Based on these findings the left seminal vesicle lesion was characterized as metastasis. The patient was started on chemotherapy along with local radiotherapy to spine.

While the local invasion of the seminal vesicle is common in prostate cancer, primary or metastatic neoplasms of the seminal vesicle are extremely rare.^[1,2] To the best of our knowledge, this is the first case reporting the finding of seminal vesicle metastasis from lung cancer on PET/CT.

Punit Sharma, Chung Marangmei

Department of Nuclear Medicine and PET/CT, Eastern Diagnostics India Ltd., Kolkata, West Bengal, India

Address for correspondence:

Dr. Punit Sharma,
13C, Mirza Ghalib Street, Kolkata - 700 016,
West Bengal, India.
E-mail: dr_punitsharma@yahoo.com

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