



An Unusual Case of Simultaneous Cricoid and Thyroid Cartilage Metastases from Prostatic Adenocarcinoma on ^{68}Ga -PSMA PET/CT

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Abstract

Although prostate cancer can metastasize to any part of the body, laryngeal cartilage metastasis is extremely rare and few cases have been published so far. Here we present the case of a 65-year-old male patient, recently diagnosed with prostate adenocarcinoma, referred for staging with ^{68}Ga -PSMA PET/CT. He was found to have extensive skeletal metastasis along with cartilage metastasis involving both thyroid and cricoid cartilages.

Keywords ^{68}Ga -PSMA PET/CT · Adenocarcinoma prostate · Thyroid cartilage · Cricoid cartilage · Metastasis

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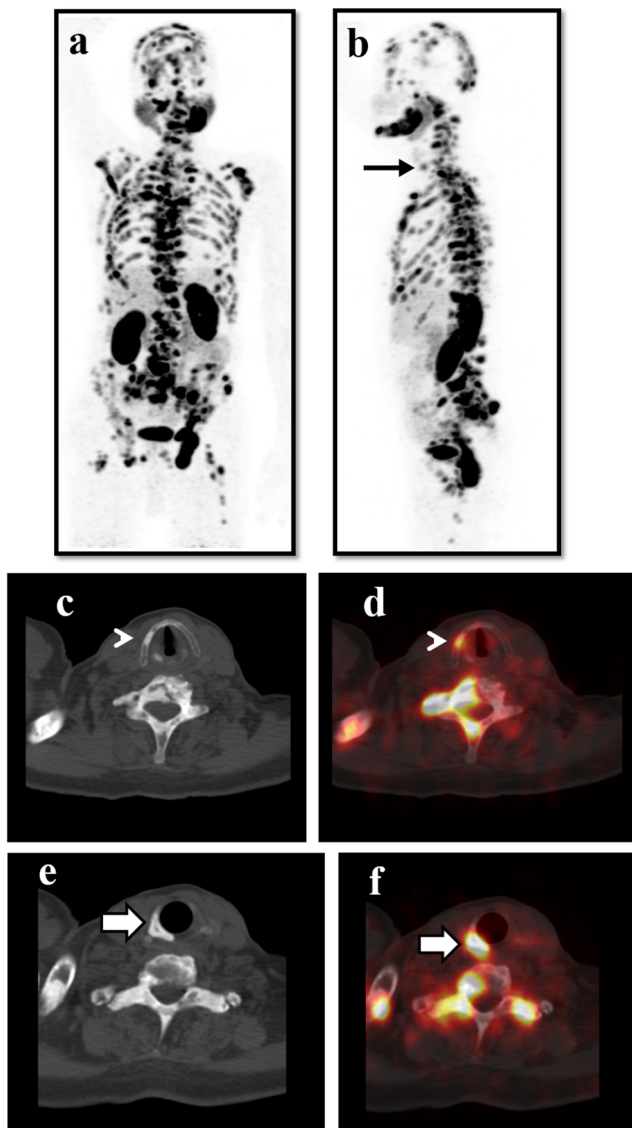


Fig. 1 A 65-year-old male patient with newly diagnosed prostate adenocarcinoma (Gleason's score, 7 (4+3) and serum PSA, 208 ng/ml) was referred for ^{68}Ga -PSMA PET/CT for initial staging. Scanning was performed after injection of 3.0 mCi of ^{68}Ga -PSMA-HBED-CC (PSMA-11). Anterior maximum intensity projection (MIP) image of ^{68}Ga -PSMA PET image (a) shows extensive skeletal metastases in addition to the normal physiologic distribution where the uptake in the thyroid and cricoid cartilage is masked by uptake in vertebrae. Left lateral view of MIP image (b) shows increased radiotracer uptake in the region of larynx (black arrow). Axial computed tomography image (c) at the level of the thyroid cartilage shows sclerotic focus (arrow head) involving the right lamina of the thyroid cartilage. Corresponding fused axial PET/CT image (d) shows increased ^{68}Ga -PSMA uptake in the sclerotic focus. Axial CT (e) at the level of the cricoid cartilage shows sclerotic focus (solid arrow) involving the right lamina of the cricoid cartilage. Corresponding fused axial PET/CT image (f) shows increased ^{68}Ga -PSMA uptake in the sclerotic focus involving the cricoid cartilage. Also, the cervical and upper thoracic vertebrae and clavicle seen with tracer-avid sclerotic areas. Metastasis to laryngeal cartilages is relatively rare and mainly arises from renal cell carcinoma [1], melanoma [2, 3], and rarely from lung [4] and colonic carcinoma [5]. Metastasis to cartilages of the larynx from prostate adenocarcinoma is extremely rare and only few cases had been published until now [6–9]. Symptoms due to involvement of the larynx by tumor may involve hoarseness, dyspnea, stridor, and hemoptysis [7, 8]. Often, laryngeal metastasis presents with other distant organs including bones.

Compliance with Ethical Standards

Conflict of Interest Avinash Tupalli, Nishikant Avinash Damle, ArunRaj Sreedharan Thankarajan, Bharadwaj Srinivas Mangu, Arunakumar, Dikhra khan, Sambit sagar, Chandrasekhar Bal declare that they have no conflict of interest.

Ethical Approval Statement All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent from the patient was obtained to be included in the study.

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