좌측 대퇴골에 발생한 만성골수염의 PET와 MDP scan 영상

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FDG-PET and MDP scan findings in chronic osteomyelitis of the left femur

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Abstract

A 49-year-old male patient with a carcinoma of the right pyriform sinus had a whole-body bone scan and gamma camera based F-18 FDG-PET for staging. Tc-99m MDP bone scan depicted diffuse increased uptake in the left femur due to chronic osteomyelitis but no skeletal metastasis. F-18-FDG-PET revealed increased focal bone uptake and uptake in the draining sinus due to chronic osteomyelitis in addition to visualization of the right pyriform sinus carcinoma and right neck nodal uptake. Fluorine-18 fluorodeoxyglucose-positron emission tomography is significantly more accurate than the bone scan in pinpointing chronic osteomyelitis focus and draining soft tissue infection.

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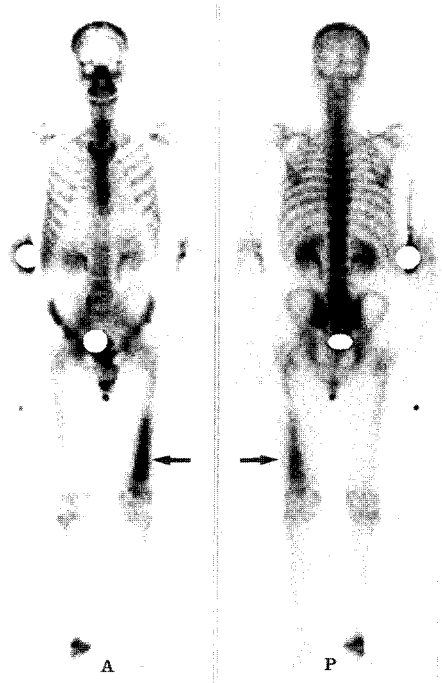

Fig 1. A whole body bone scan in anterior (A) and posterior (P) projections using Tc-99m methylene diphosphonate (MDP) was done for metastatic work-up in a 49-year-old male patient with carcinoma of the right pyriform sinus. The scan revealed increased uptake in the right ankle due to previous trauma. He had a history of fracture of the left femur 35 years ago and since then the patient has had pus draining from the medial aspect of left distal thigh on and off. There was diffuse increased uptake involving the lower half of left femur consistent with chronic osteomyelitis (arrow).

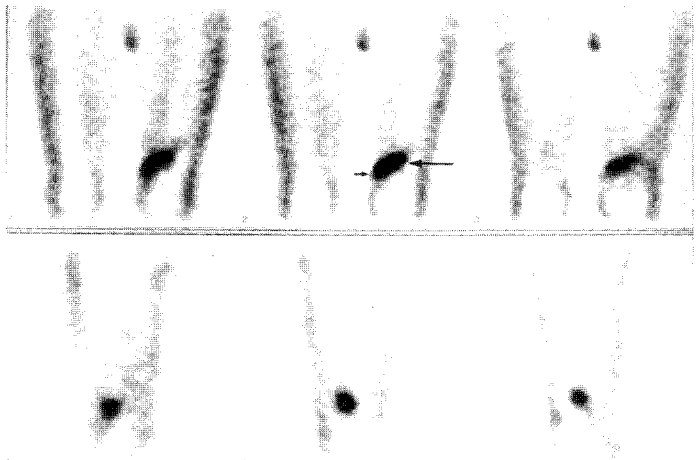

Fig 2. Gamma camera based F-18-FDG-PET of the head, neck and chest revealed right pyriform finus tumor and right neck nodal uptake (not shown). In addition, three coronal and sagittal slices of both femora revealed he had a focal increased FDG uptake at the left distal femur (long arrow) and draining sinus tract (short arrow), which was more accurate than the bone scan. FDG PET provides accurate information about the extent of chronic osteomyelitis and is highly accurate single technique in the evaluation of chronic osteomyelitis. (1,2)

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