Incidental Finding of Bony Metastatic Disease Secondary to Bronchial Adenocarcinoma in a Patient with Paget's Disease of the Bone

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Paget's disease of the bone is a chronic progressive disease characterized by an increase in bone resorption, followed by a disorganized and excessive formation of new bone. The occurrence of Paget's disease of the bone and bony metastases from adenocarcinoma of the lung in the same patient is uncommon. We report a 69-year-old lady with a history of T2DM who complained of intermittent left hip pain for the past 3 years. Clinical examinations including that of the hip joints were unremarkable. Biochemical tests revealed normal serum calcium and phosphorus with markedly raised alkaline phosphatase. X-ray of the hip revealed diffuse sclerotic left pelvic bone and MRI of the hip revealed extensive marrow signal abnormalities at the left pelvic bone. Histopathology of bone biopsy of the left iliac bone was consistent with Paget's disease of the bone. CT of thorax, abdomen and pelvis revealed a spiculated lung nodule at the left lower lung lobe which lead to a CT guided biopsy of the mass revealing adenocarcinoma of the lung. She had 18F-FDG PET-CECT Scan for staging evaluation and showed intense tracer uptake in the left lower lobe of the lung with multiple mediastinal lymph nodes as well as right sacral bone, right ilium and bodies of L3-L5 suggestive of new bony metastases. However, there was normal uptake in the left ilium. Patient was started on IV Zoledronic acid for treatment of the Paget's disease. In view of the stage 4 lung adenocarcinoma with bony metastases, patient was scheduled for palliative chemotherapy.