

# Society of Skeletal Radiology

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## Case of the Day 1: #SSR18COD1



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### History:

- 52-year-old man
- Remote history of AML and squamous cell carcinoma of the tongue
- Worsening severe bilateral hip pain
- Found to have multiple atraumatic rib and vertebral body fractures



Sagittal T1



Sagittal T2 FS



Sagittal T1 FS +gad



PET MRI Fusion Image

### Whole Body PET MIP



### Diagnosis: *Oncogenic osteomalacia related to benign phosphaturic mesenchymal tumor*

- Rare paraneoplastic syndrome of unknown etiology
- Characterized by:
  - Fibroblast growth factor 23 expression
  - Hypophosphatemia and inappropriate phosphaturia
  - Fragility fractures
- Resection is curative
  - Can be located anywhere in the body
  - Imaging techniques include:
    - <sup>111</sup>Indium-pentetreotide scintigraphy
    - <sup>18</sup>F-FDG PET/CT
    - <sup>68</sup>Ga-DOTATATE PET/CT