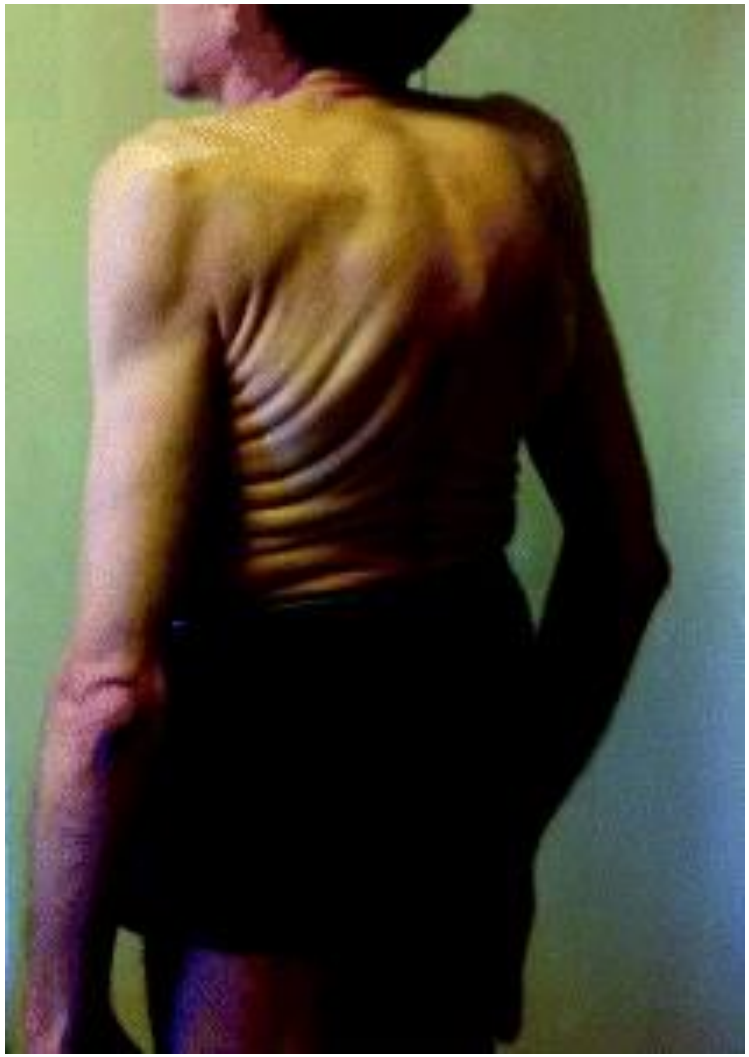
Osteomalacia

Challenges for rheumatologists



Problems list

- Low back pain and weakness
- Physical findings consistent with Ankylosing spondylitis (AS)
- Normal ESR, CRP, Negative HLA B27
- No sacroiliitis or spondylitis in imaging
- Severe OP in spine and pelvis with multiple osteoporotic fractures in vertebra
- Radionucleotide uptake in shoulder and pelvis
- High ALP and low P, normal vitamin D

Mimickers of AS

- Other seronegative spondyloarthropathies
- Spondylosis
- DISH
- Diseases cause chondrocalcinosis like CPPD and Ochronosis
- Fibromyalgia
- Severe osteoporosis/Osteomalacia
- Hypoparathyroidism

Does osteomalacia really mimic AS?

1. Tumor-Induced Osteomalacia Treated as Ankylosing Spondylitis and Osteoporotic Compression Fracture. J Clin Rheumatol. 2019 Jul 25.

2. A case of osteomalacia mimicking ankylosing spondylitis. Rheumatol Int. 2001 Aug;20(6):239-42.

3. Osteomalacia and osteoporosis in a woman with ankylosing spondylitis. J Bone Miner Res. 1996 May;11(5):697-703.

4. Atypical axial osteomalacia. Report of four cases with two having features of ankylosing spondylitis. Arthritis Rheum. 1978 Jul-Aug;21(6):715-22.

How osteomalacia mimics AS?

- Severe bone pain
- Severe limitation of motion in spine and kyphosis due to osteoporotic fractures

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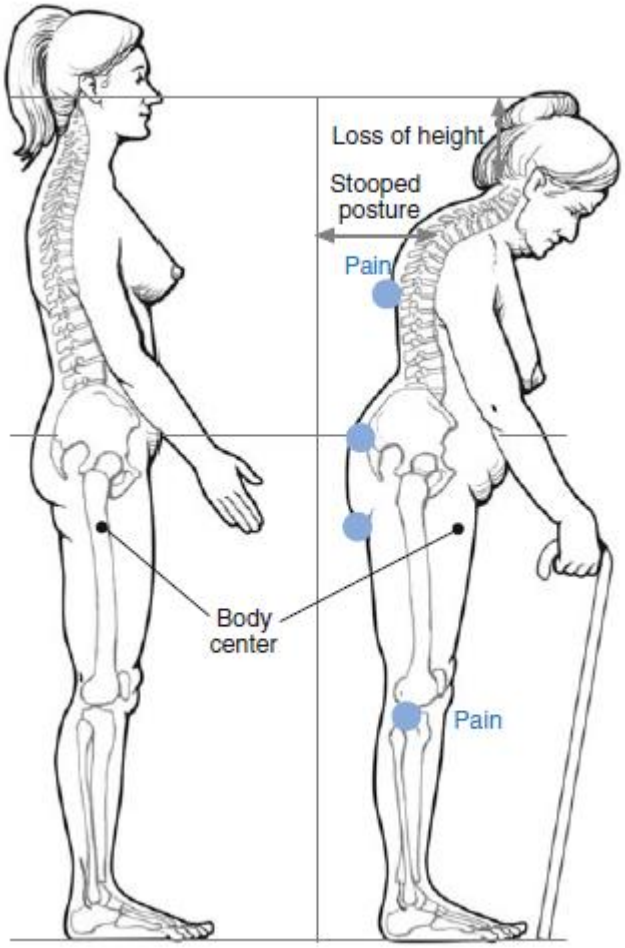

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- Severe bone pain
- Severe limitation of motion in spine and kyphosis due to osteoporotic fractures
- High ALP
- Sacroiliitis in pelvis radiographs

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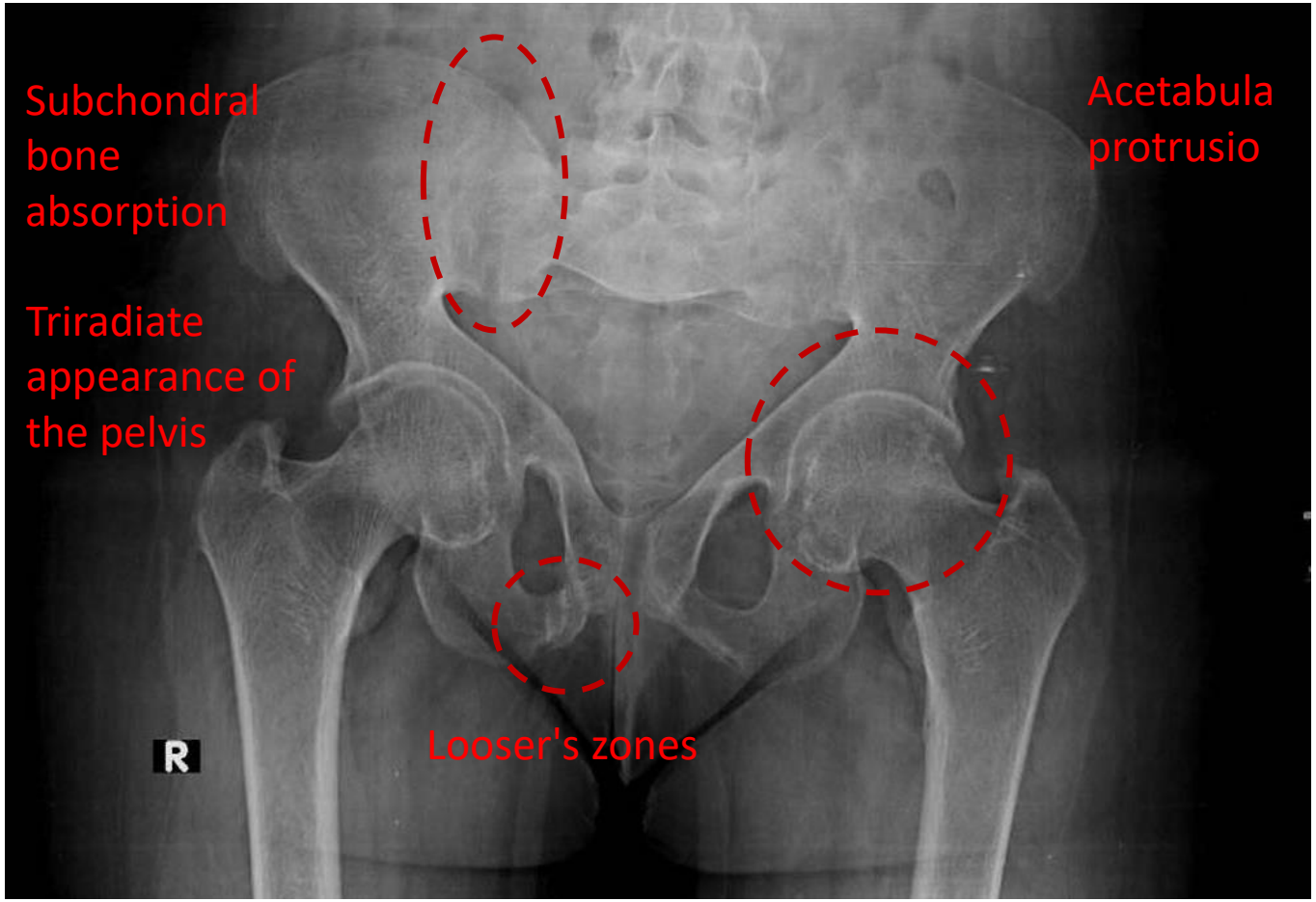
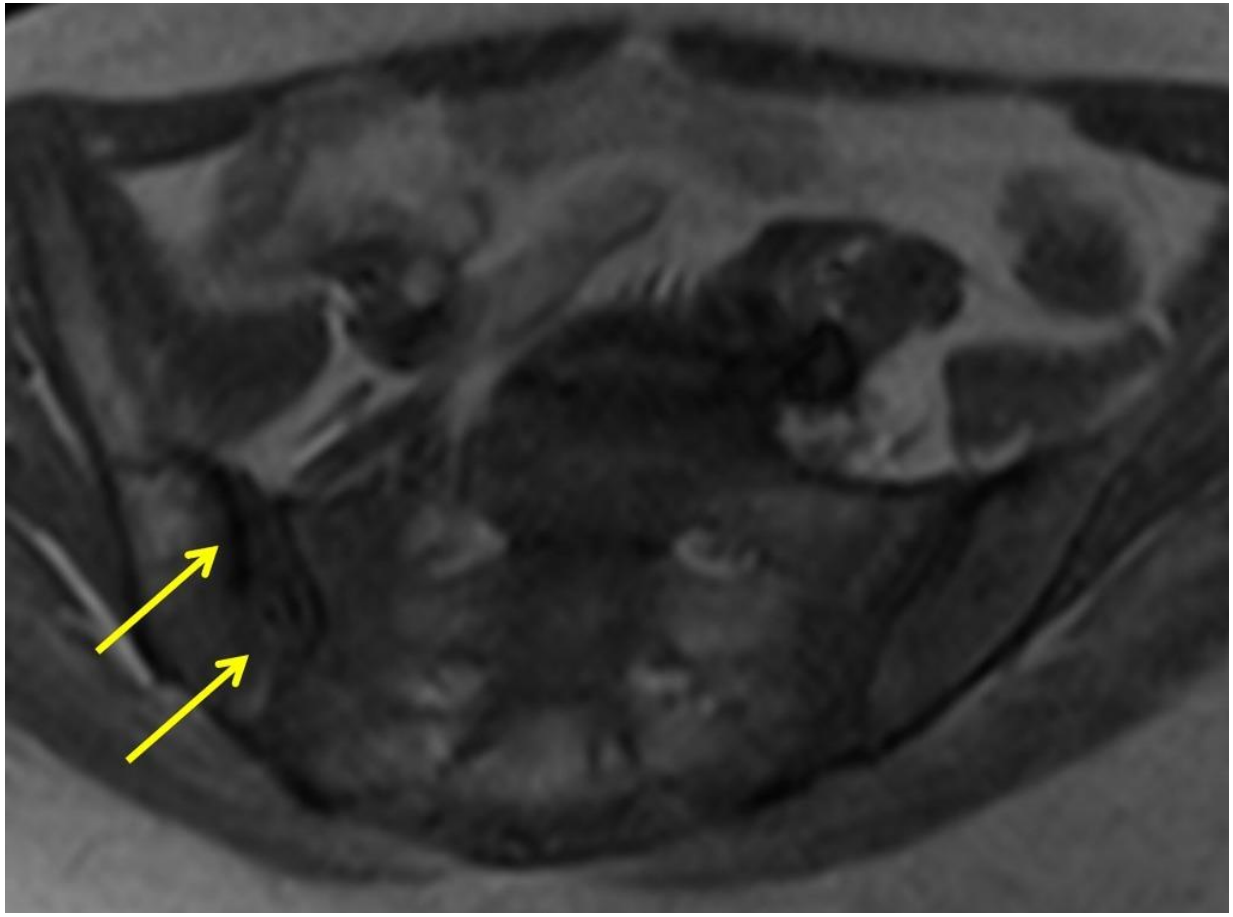


How osteomalacia mimics AS?



Sacroiliac joint pathologies in low back pain

- In a retrospective study, 61 patients with SIJ pain (unilateral or bilateral) greater than six weeks duration were evaluated

Sacroiliac joint pathologies in low back pain. Journal of Back and Musculoskeletal Rehabilitation 22 (2009) 91–979

SIJ pain diagnosis in the series

Diagnosis	No of cases	Sex ratio (M:F)
Ankylosing spondylitis (AS)	21	16:5
Undifferentiated spondyloarthropathy(UspA)	11	8:3
Psoriatic arthropathy (PsA)	5	3.2
Reactive arthropathy (ReA)	1	1:0
Juvenile spondyloarthropathy (JRA)	2	2:0
Osteitis condensus ilii (OCI)	4	0:4
Osteomalacia (OM)	2	0:2
Pregnancy related SIJ pain	2	0:2
Tuberculosis (TB)	2	1:1
Pyogenic arthritis	1	0.1
Chondrosarcoma(CS)	1	0.1
Total	52	31:21

S. Akkus · M. Numan Tamer · Hüseyin Yorgancigil

A case of osteomalacia mimicking ankylosing spondylitis

suspicion is usually necessary for early diagnosis, because radiologic and biochemical changes are not always characteristic and may occasionally be misleading [1, 3]. Symptoms of OM can be confused with musculoskeletal manifestations attributable to fibromyalgia, polymyalgia rheumatica, polymyositis, rheumatoid arthritis, ankylosing spondylitis (AS), diffuse idiopathic skeletal hyperostosis, multiple myeloma, and metastatic bone disease [1]. In this report, we describe a patient with OM presenting with AS-like axial pain and stiffness which was relieved with vitamin D and calcium.

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Physical findings included restricted movement of the lumbar spine, sacroiliac joint tenderness, positive Schober's test (10–12.5 cm), and bilaterally positive Mennel and Fabere tests. Neurological findings were normal, but she had significant difficulty in standing up from a sitting position and starting to walk.

Serum biochemistry studies revealed elevated alkaline phosphatase of 410 mU/ml (normal 38–155) and elevated bone isoenzyme levels. Serum calcium and phosphorus levels were 8.5 mg/dl (normal 8.1–10.4 mg/dl) and 3.8 mg/dl (normal 2.6–5.9 mg/dl), respectively. Serum 25-hydroxyvitamin D had decreased to 9 ng/ml (normal 10–40 ng/ml). All other routine hematology, serology (including CRP) and biochemistry tests were within normal limits. Human leukocyte antigen-B27 was also negative.

Plain radiographs revealed bilateral multiple pseudofractures of the pubic rami and femoral neck and minimal sacroiliac irregularity (Fig. 1). Computed tomography of the sacroiliac joint was interpreted as normal except for slight sclerosis (Fig. 2). The diagnosis of AS was excluded because of these negative radiological findings. In this case, the diagnosis of OM was established with radiological and

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The main question in this report is whether the case was purely OM or presented together with AS. Although the symptoms and physical examination findings had fulfilled the modified New York criteria for AS, the radiological and laboratory findings did not. AS-like findings, e.g., restriction of lumbar motion and positive Fabere and Mennel tests, may be due to pain and muscle spasm resulting from pseudofractures in the pelvic bones. Our patient's data were also not sufficient for the classification criteria of the European Spondyloarthropathy Study Group.