History

60 year old man with lateral, right sided knee pain.
Coronal Sequence
Right Knee MRI

Sagittal Sequence
Right Knee MRI

What's the Diagnosis - Case 8
Findings

Cortical thickening is present along the lateral aspect of the proximal femur and tibia in a sclerotomol distribution with additional thickened and enlarged trabeculae noted of the femoral condyle. In addition, there is prominent inflammatory change noted deep to the iliotibial band in the soft tissue adjacent to the bony changes.
Cortical thickening along the lateral aspect of the femur
Coronal Sequence
Right Knee MRI

Cortical thickening

Thickened trabeculae

Sagittal Sequence
Right Knee MRI
Diagnosis - Melorrheostosis

Comments: A benign bony proliferative process typically identified in early adulthood but sometimes becoming symptomatic only later in adult life when there is pain and limitation of joint movement secondary to bony encroachment. Additionally, there may be adjacent soft tissue inflammation as in this case which is precipitating an iliotibial band friction type syndrome. There is a typical candle wax cortical thickening and trabecular condensation in a sclerotomal (distribution of the skeleton supplied by a sensory nerve) distribution. In approximately one quarter of the cases, soft tissue masses with calcification are seen.
Resources


Further Reading
• Hospital for Special Surgery Manual of Rheumatology and Outpatient Orthopedic Disorders, Ch. 39 - Ankylosing Spondylitis

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