

IOP - Images

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Case presentation

Thirty-five year-old male with acknowledged congenital clotting disorder, who consults for joint pain at the elbow level. Physical evaluation reveals limitation in extension and some degree of rigidity.

Findings in and interpretation of imaging studies

MRI images show diffuse elbow joint involvement with synovial thickening out of storage of tissue with remarkably hypointense signal in all sequences, which is actually hemosiderin. There is significant chondral slimming, sub-chondral erosions and epiphyseal deformation (Figures 1-4).

Resolution of the case on page 69.



▲ **Figure 1.** Elbow's T1-sequence MRI-coronal section. There are sub-chondral erosions on the joint surfaces (arrows) and synovial hypertrophy (arrowheads). EHC= external humeral condyle, IHC= internal humeral condyle, RH: radial head.

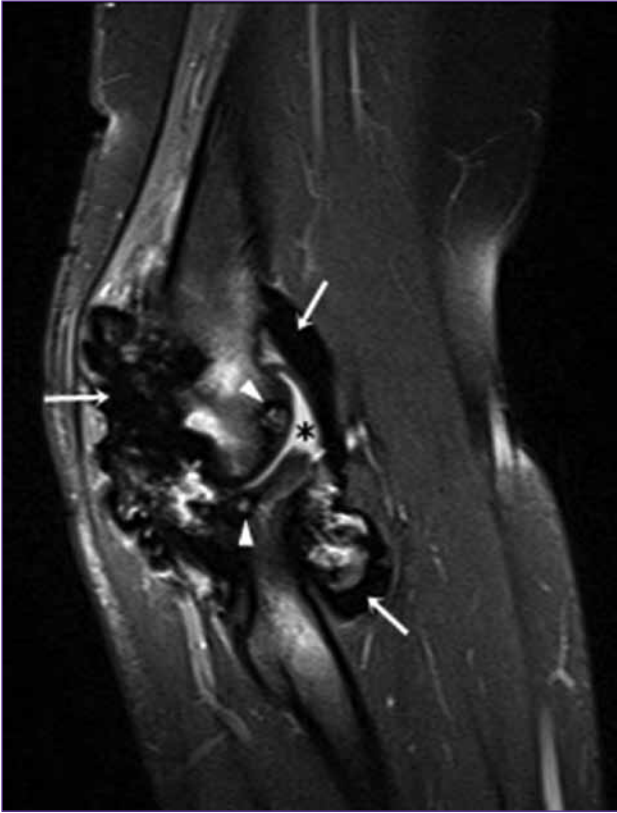


Figure 2. Elbow lateral-compartment's MRI-sagittal section, protonic density sequence with fat suppression. Synovial thickening with gross storages of hemosiderin in all capsular sacs (white arrows) associated with joint effusion (asterisk). There is a sub-chondral micro-cyst in the radial head (arrowhead).

Figure 3. Elbow medial-compartment's MRI-sagittal section, protonic density sequence with fat suppression. There is gross hemosiderin storage which forms a nodular image (circumscribed by the white arrows). We can see the effect of magnetic susceptibility caused by hemosiderin—there are white “sparkles” where bone marrow should look dark (black arrows).

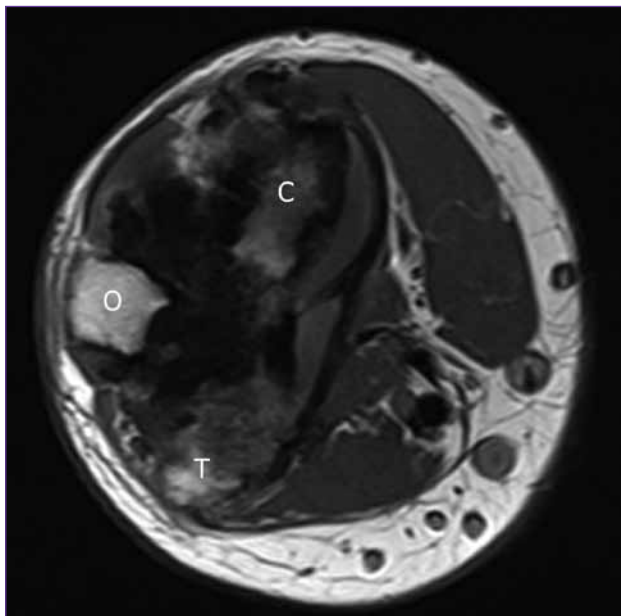
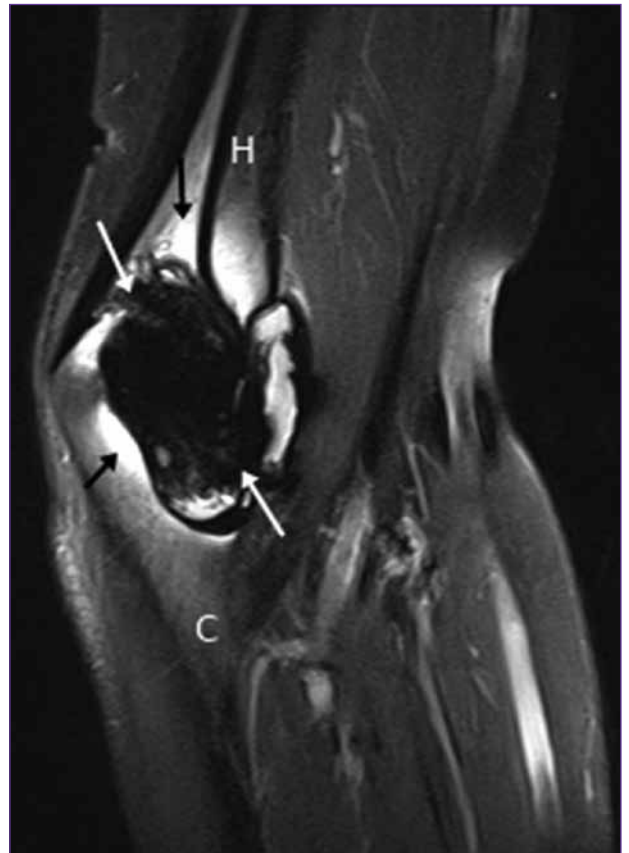


Figure 4. Elbow MR-transverse section immediately above the joint line. Hemosiderin synovitis is evident.