

Mimicry of a Rheumatoid Nodule by Tophaceous Pseudogout at the Elbow

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A 74-year-old woman attended the hospital with musculoskeletal pain of the whole body. A “rheumatoid nodule” (Figure 1A) of the elbow, confirmed by low field magnetic resonance imaging (Figure 1B), suggested rheumatoid arthritis. But rheumatoid factor and a typical arthritis were not detectable. Ultrasonography (Figure 1C) showed a hyperechoic mass; a gout tophus was assumed, with the supporting evidence of increased serum uric acid. Surprisingly, polarization microscopy of the punctured mass revealed calcium pyrophosphate crystal deposition (Figure 1D). Hypoparathyroidism was diagnosed, with decreased calcium levels in serum and urine, increased phosphate, normal vitamin D, and decreased parathyroid hormone. Other typical clinical manifestations were evident: muscle cramps and elevated creatine kinase levels, cataract, and increased bone density. Tophaceous pseudogout, as described by others¹⁻³,

has to be recommended as differential diagnosis of joint swelling or a rheumatoid nodule. Noninvasive imaging could not replace the diagnostic gold standard — microscopy of a probe.

REFERENCES

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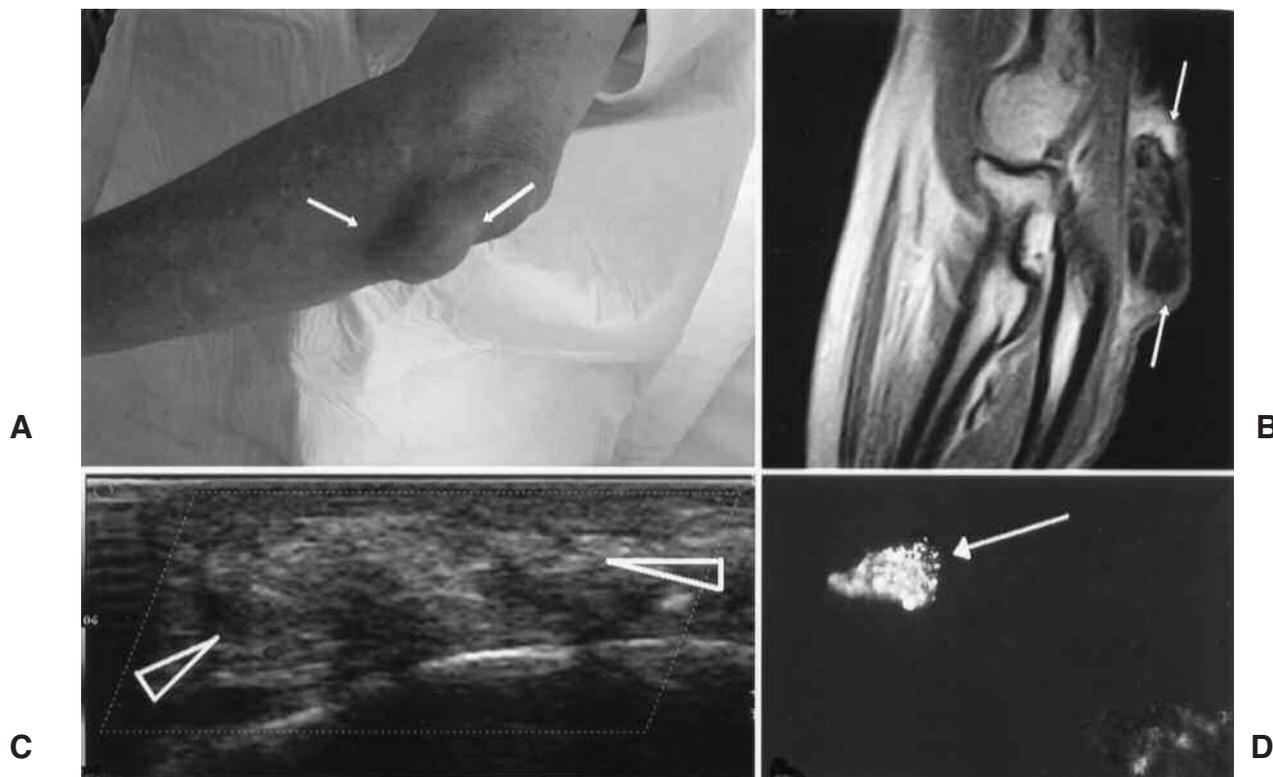


Figure 1. “Rheumatoid nodule” of the elbow (A), confirmed by low field magnetic resonance imaging (B), suggested rheumatoid arthritis. Ultrasonography (C) showed a hyperechoic mass. Polarization microscopy of the mass revealed calcium pyrophosphate crystal deposition (D).