

Looking for a needle in a haystack

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A 56-year-old man with long-standing chronic seronegative polyarthritis was first seen in our clinic. Treatment with synthetic DMARD and anti-TNF drugs was ineffective in controlling inflammation, and structural damage was obvious. A clinical exam showed prominent indurated nodules in both elbows. For an accurate diagnosis, aspiration of a nodule for microscopic examination was performed. The small sample obtained showed abundant cholesterol crystals (Figure 1a, compensated polarized light), but a careful examination allowed identifying typical acicular crystals with a strong negative birefringence characteristic of monosodium urate (Figure 1b, black arrow, $-\lambda$ shows the compensator axis), confirming the diagnosis of gout. Cholesterol crystals are commonly found in chronic processes, but they are not specific (1). However, the finding of monosodium urate crystals allows the accurate diagnosis of gout. Joint, bursa, or nodule aspiration is a simple and easy procedure, and it could result in findings as interesting and useful as these.

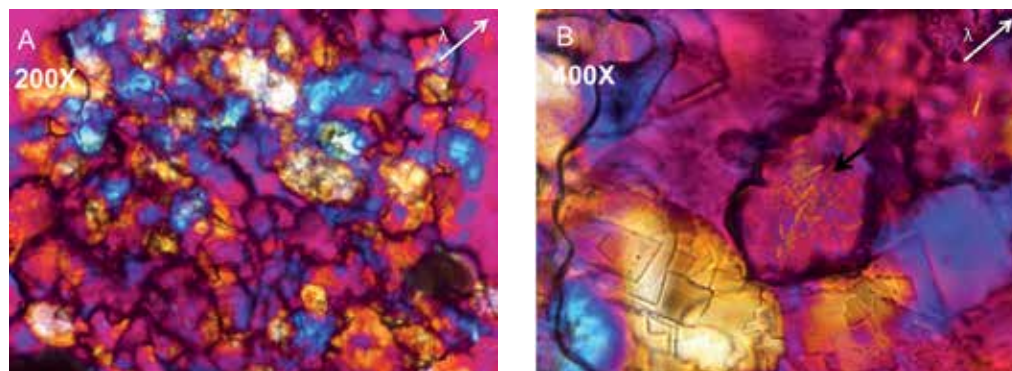


Figure 1. a, b. Cholesterol crystals seen by compensated polarized light microscope to 200X. $-\lambda$ shows the compensator axis (a); Black arrow showing acicular crystals with a strong negative birefringence characteristic of monosodium urate, seen by compensated polarized light microscope to 400X. $-\lambda$ shows the compensator axis (b).

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Reference

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