Arthritis Induced by Corticosteroid Crystals

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A 65-year-old man with bilateral osteoarthritis of the knee presented a joint effusion of the left knee. The swollen joint was treated with a 40 mg intraarticular injection of triamcinolone hexacetonide. The next day, he presented with acute arthritis in the injected knee; the joint was swollen and tender and he was unable to walk. Septic arthritis was considered and the joint fluid was aspirated. Gross examination showed 35 ml of a thick, turbid, yellowish synovial fluid (Figure 1A). Leukocyte count was 13,000 cells/mm^3 with 95% neutrophils. Gram and acridine orange stainings were negative. Wet preparations of the specimen with polarizing compensated microscopy showed numerous birefringent, pleomorphic intra- and extracellular crystals of the corticosteroid (Figure 1B). He underwent joint lavage with 1 l of normal saline and recovered completely within one day. The conclusive diagnosis was triamcinolone hexacetonide crystal-induced arthritis[1,2].

REFERENCES

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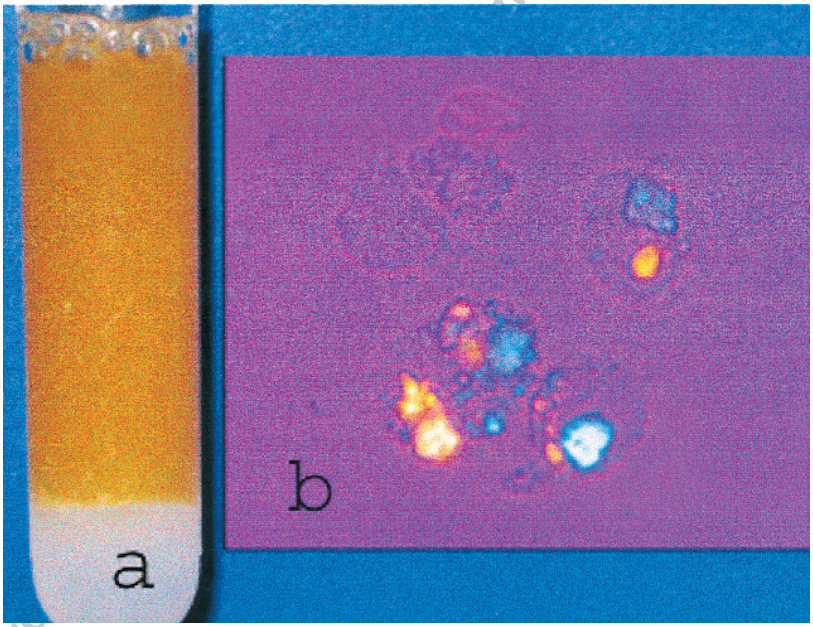

Figure 1. A. Macroscopic appearance of the synovial fluid aspirated from the left knee. B. Intracellular triamcinolone hexacetonide crystals. Compensated polarized light, ×100.