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*Case reports*

# Unusual antefemoral dissecting cyst

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Cystic collections in the popliteal space (Baker's cysts) are frequently observed in inflammatory joint diseases. The causal mechanism is generally regarded as entrapment of synovial fluid from the articular space in the gastrocnemio-semimembranosus bursa (Doppman, 1965; Freiberger & Kay, 1979; Wilson et al, 1938); back flow is prevented by a valve effect at the level of their connection (Jayson & Dixon, 1970; Lindgren, 1978a,b; Rauschning, 1980).

These cysts can remain localised in the popliteal space or can give rise to dissections and/or rupture. This usually occurs between the calf muscles but occasionally the cyst may extend into the thigh (Meurman et al, 1978).

In comparison with these posterior dissecting cysts, the finding of an anterior dissecting cyst originating from the suprapatellar pouch is very rare. A report of such a case is presented.

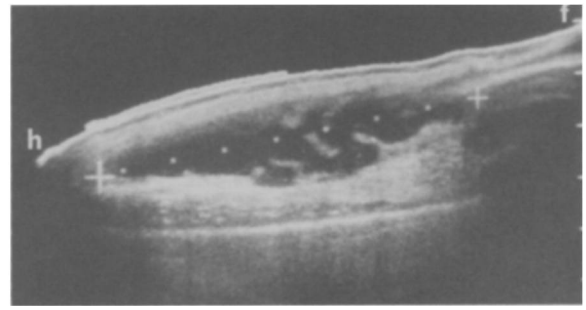
## Case Report

A 49-year old woman with classic seronegative rheumatoid arthritis was admitted because of an acute exacerbation of clinical symptoms. Till then the patient had been treated with non-steroidal anti-inflammatory drugs and had never received penicillamine, gold salts or immunosuppressive drugs; she received corticosteroidal drugs for only a brief period as a child.

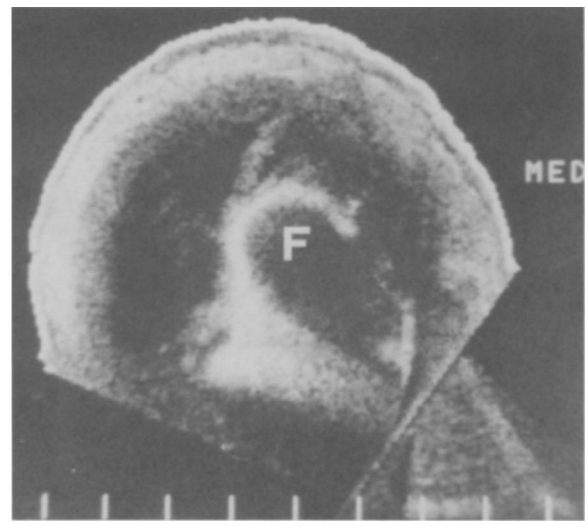
Examination showed ulnar deviation of the fingers, as well as deformities of the ankles, MTP joints and toes. Bilateral knee effusions were present, with ankylosis of the right knee in 10° flexion which had been present for 9 months. There was swelling of the right thigh which measured 3 cm more in circumference than the left. The skin of the thigh was tense and shining, with prominent superficial veins; on palpation it was warm and very painful, and a local swelling could be felt in the proximal and lateral aspects of the quadriceps muscle. These signs had appeared suddenly about 20 days previously.

On ultrasound examination a large sausage-shaped fluid collection with echogenic septa was shown on the anterior aspect of the femur, extending approximately from the great trochanter down to about 8 cm above the upper pole of the patella (Fig. 1A, B). The swelling was aspirated and about 30 ml of turbid, slightly blood-stained fluid was removed, rich in fibrin and with low viscosity. Microscopic examination of the fluid showed 35 000/mm$^3$ white cells with a high percentage of ragocytes. Culture was negative.

A dissecting cyst being suspected, single contrast arthrography of the right knee was performed and about 80 ml of non-ionic contrast medium (iopamidol, iodine 300 mg/ml) was injected into the joint by retropatellar puncture. At the apex of the suprapatellar bursa, contrast medium entered a narrow channel 2 cm long, extending laterally and entering a huge cyst-like space, with sharp margins and multiple septations, extending upwards almost as far as the great trochanter of the femur (Fig. 2A, B).



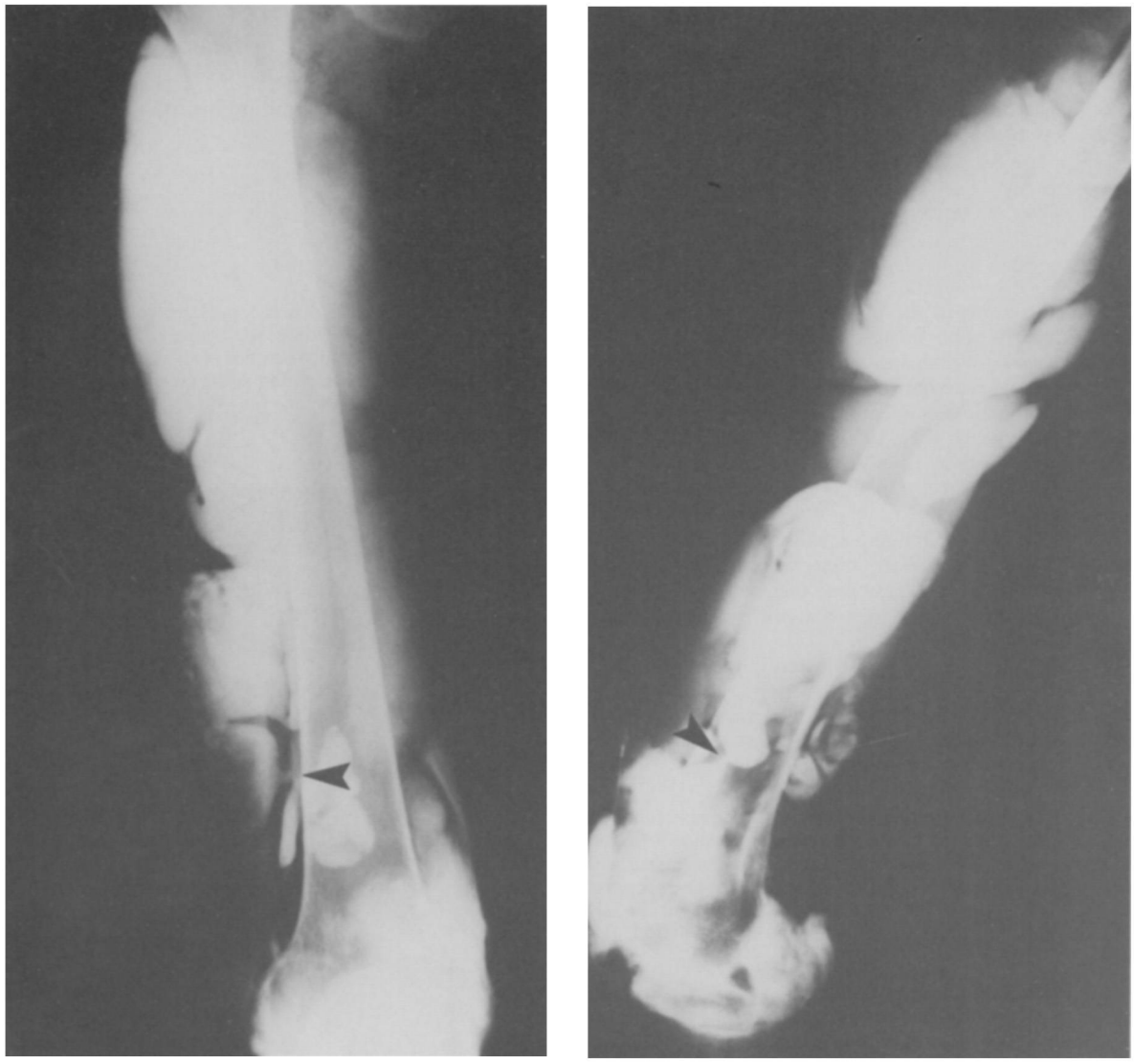

A




B

FIG. 1A, B.

On longitudinal (A) and transverse (B) scans, a large cyst-like fluid collection is clearly seen around the anterior side of the right femur, with echogenic septa inside. h head; f feet; F femur; med medial side of the thigh.



A B

FIG. 2A, B.

Contrast medium injection into the suprapatellar pouch demonstrates a huge antefemoral dissecting cyst, with sharp margins and multiple septa. (A) anteroposterior (B) lateral projection. Arrowheads point to the communication between the suprapatellar bursa and the cyst.

## DISCUSSION

Cysts or cyst-like spaces arising from the suprapatellar bursa have rarely been observed. To our knowledge up to now only 10 cases in all have been reported (Duncan, 1974; Palmer, 1972; Seidl et al, 1979), all of lesser extent than that observed in this patient.

As underlined by Seidl (1979), the development of these cysts, like Baker's cysts, is the consequence of increased intra-articular pressure because of the following factors: overproduction of synovial fluid, synovial hypertrophy, capsular sclerosis, joint movement and muscular contraction. Increased intra-articular pressure during knee flexion is compensated by diffusion of synovial fluid from the articular space into the gastrocnemio-semimembranosus bursa (Dixon & Grant, 1964; Jayson & Dixon, 1970). It is interesting to note that in this patient, because of the 9-month ankylosis of the knee and the severe muscle atrophy, at least two factors responsible for the increased intra-

articular pressure were absent, *i.e.*, joint movement and muscle contraction. It is likely that the ankylosis of the knee in mild flexion prevented the diffusion of synovial fluid into the gastrocnemio-semimembranosus bursa. The authors feel that in this case the development of the cyst is related to the particular clinical features and to the continuous production of synovial fluid, causing the weakening and rupture of the suprapatellar pouch, with progressive spread of synovial fluid and its subsequent encystment due to local inflammatory reaction (Hench et al, 1966; Seidl et al, 1979). This would explain not only the multilocular aspect of the collection, uncommon in the reported cases, but also the wide dissection among the muscle planes as well as the three-week clinical picture suggesting deep vein thrombosis. However, a further factor in the unusual extension of the cyst may be the prolonged bed rest in association with the block in flexion of the knee, facilitating the proximal spread of synovial fluid because of gravity.

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# Familial varices of the colon occurring without evidence of portal hypertension

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Colonic varices are rare and have usually been seen in the presence of portal hypertension or portal venous obstruction (Iszak & Finley, 1980). Where they occur in its absence a congenital aetiology is possible. In this report we describe colonic varices occurring without liver disease or portal hypertension in a man, his sister and probably his daughter.

## CASE REPORTS

*Case 1, H.H.*

A 66-year-old man was admitted through Casualty because of the continuing passage of dark red blood per rectum for 10 days. He was seen elsewhere in 1941 at the age of 25 with similar symptoms and had numerous similar episodes requiring transfusion, over the intervening 41 years. In 1951 a barium enema was interpreted as showing multiple polyposis throughout the colon and subsequently, at sigmoidoscopy, large venous varicosities were seen.

At the time of the present admission he was anaemic with a tachycardia but physical examination was otherwise unremarkable. Investigations revealed a haemoglobin of 7.7 g/dl with an MCV of 77 fl and hypochromic changes in the red cells. Biochemical liver function tests and tests of blood coagulation were normal. No oesophageal varices were seen at upper gastrointestinal endoscopy and there was no blood in the stomach or duodenum.

A double contrast barium enema examination showed serpiginous filling defects throughout the colon (Fig. 1) and colonoscopy confirmed these lesions to be varices (Fig. 2). The

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