

Synovial hemangioma of the knee

A case report

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Synovial hemangioma is rare; the most frequent site is the knee (Moon 1973). It is predominantly observed in children and adolescents. Hemangioma in the knee joint may be synovial, juxtaarticular, and intermediate (DePalma and Mauler 1964, Halborg et al. 1968).

Case report

A 10-year-old girl was admitted because of intermittent knee pain and swelling over the past 7 years. A soft tumor was found at the lateral corner of the patella, and a subcutaneous hemangioma was seen in the popliteal area. Radiographs showed a poorly defined soft-tissue density at the site of the palpable tumor. Arteriography revealed a richly vascular tumor without arteriovenous shunts. Computed tomography demonstrated that the lesion was situated

both extraarticularly and intraarticularly, with minor destructive changes in the medial femoral condyle (Figure 1).

Lateral parapatellar exploration revealed a soft vascular mass attached to the vastus lateralis penetrating the joint capsule. The synovium was diffusely thickened, dark brownish red, and the synovial fluid was brownish yellow. The extraarticular mass was excised, and a total synovectomy was performed. The histologic diagnosis was cavernous hemangioma. One year postoperatively, the child was asymptomatic.

Discussion

Bennett and Cobey (1939) classified the synovial hemangioma as diffuse or localized. The diffuse type usually causes intermittent pain and swelling

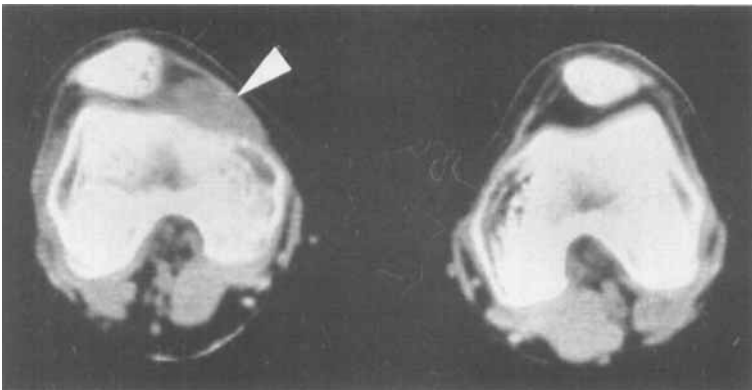


Figure 1. Computed tomography. A synovial hemangioma of the right knee has displaced the patella laterally. In addition, there are minor destructive changes in the medial femoral condyle.

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(DePalma and Mauler 1964, Halborg et al. 1968). Overgrowth of the limb is rare (Moon 1973). The localized form may cause mechanical interference with joint motion. Today, the total number of published cases of synovial hemangioma is about 160—almost all affecting the knee joint (Moon 1973, Miehke et al. 1978). Radiographic examination occasionally shows phleboliths and advanced ossification of the epiphyses, and bone destruction may be demonstrated (Halborg et al. 1968, Larsen and Landry 1969, Forrest and Staple 1971). Arteriography usually shows highly vascular lesions and can reveal arteriovenous shunts, but arteriography may fail to identify the tumor (Forrest and Staple 1971, DePalma and Mauler 1964, Moon 1973). In our case, computed tomography was valuable in detecting the tumor (Ryd and Stenström 1989). The treatment is radical excision.

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