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A Rare Cause of Knee Flexion Contractures: Intramuscular Hemangioma in the Quadriceps Muscle

Diz Fleksiyon Kontraktürünün Nadir Bir Nedeni: Kuadriseps Kasında İntramüsküler Hemangioma

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To the Editor;

A 15-years-old male was presented to our clinic with progressive and painless right knee flexion contracture. The patient noticed a soft tissue mass in the anterior aspect of his right knee a year ago. Throughout this period, swelling gradually increased. The patient had received a diagnosis of presumed congenital cavernosus hemangioma in right ankle and it was operated and the mass removed. There was no history of associated constitutional symptoms, bleeding tendencies, trauma or infection prior to the appearance of the mass. Examination revealed an asymmetric, boggy, noncompressible, and nonpulsatile swelling in the anterolateral aspect of right knee region measuring (Figure 1). The overlying skin was normal with no discoloration and no local increase of temperature. The fossae on either side of the patellar tendon were normal and the patellar tap was negative. There was no distal neurovascular deficit or bruit. Limb length was equal to the contralateral limb. Magnetic resonance imaging scans showed a soft-tissue mass below the anterior thigh muscles, which suggested a hemangioma with no communication with the joint cavity (Figure 2). Patient was planned for surgical excision.

Figure 1. Asymmetric, boggy, noncompressible, and nonpulsatile swelling in the anterolateral aspect of right knee region

A flexion contracture (FC) of the knee is the inability to fully straighten the knee. Normal active range of motion of the knee is 0° at extension and 140° at flexion. In individuals with a FC, one of the motions or both quadriceps muscle are reduced. FC can occur due to various causes such as burn scars, intra-articular fractures, septic arthritis, juvenile rheumatoid arthritis, cerebral palsy and many others. Rare reasons such as hemangioma may cause the FC. Hemangioma is a common soft-tissue tumor but intramuscular cavernous hemangiomas represent less than 1% of all hemangiomas. Most patients present with a mass and/or pain, which often aggravate with activity (1). The younger age groups are most frequently affected with 85% of cases having occurred under the age of 30 years, among which 30% are seen in lower extremities with quadriceps being the most common muscle involved. The majority of tumors are located in the lower extremities. They usually present as slowly enlarging soft tissue masses with few symptoms (2). There is no agreement about the etiology of these tumors, their appearance is often linked to trauma but much data exists suggesting a congenital origin (3). Many treatment modalities (percutaneous sclerotherapy, radiotherapy, embolization and freezing) for the symptomatic hemangiomas are available of which surgical excision is the most preferred. The aim of presenting this case was to emphasize that, in cases with chronic, progressive and painless swelling in a muscle or adjacent to a joint with or without an episode of trauma especially in a young individual, the physician should be alert to this early diagnosis.

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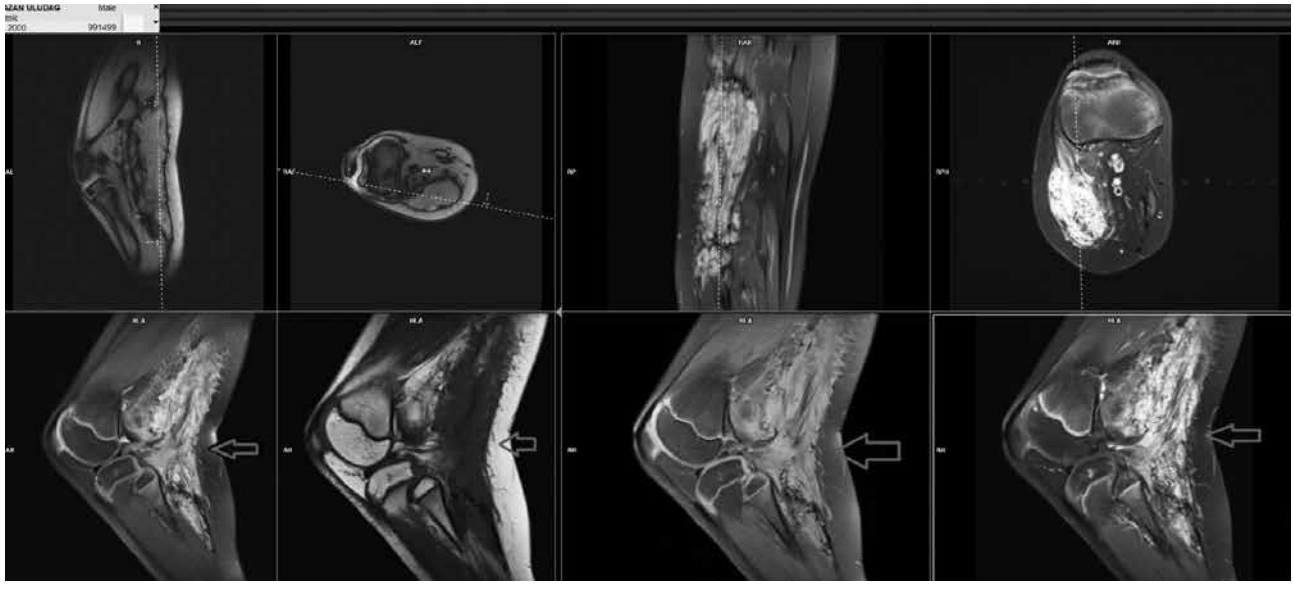

Figure 2. Soft-tissue mass below the anterior thigh muscles, which suggested a hemangioma with no communication with the joint cavity

Keywords: Intramuscular hemangioma, knee flexion contractures, surgical excision
Anahtar kelimeler: İntramüsküler hemanjioma, dizin fleksiyon kontraktürü, cerrahi eksizyon

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