INFRAPATELLAR FAT PAD HAEMANGIOMA — CASE REPORT

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Abstract: We present a case of a 38-year-old woman with a soft tissue mass on the right knee in medial infrapatellar area. The flexion of the knee appeared to be limited and a pain was present at maximal flexion. Ultrasonography, standard X-ray and CT scan were performed for diagnosis of this soft tissue tumour. MRI was not done due to technical problems. Anyhow the MRI could provide us with more presumptions of the type of the tumour, but it will not affect the surgeon’s decision for operation. Anyway the final diagnosis will come out of the histopathological findings.

Arthroscopic examination was performed in order to eliminate possible problems into the joint followed by open wide excision. A soft tissue tumour with dimensions of 5 x 4 x 1.5 cm was excised. Histopathological diagnosis was synovial haemangioma located in the infrapatellar fat pad. The patient was asymptomatic postoperatively.

Haemangiomas located in infrapatellar fat pad are rare. Orthopaedic surgeons can often be confused by more common entities like chondromallatia of patella, synovitis of the knee, Hoffa’s disease, other soft tissue tumours, even lesion of meniscus. So, accurate diagnosis is very important for differentiation. Operative excision, arthroscopic or open wide, is definitive treatment for this benign tumour.

Key words: Haemangioma, infrapatellar fat pad, knee.

INTRODUCTION

The infrapatellar fat pad (Hoffa) is an intracapsular, extrasynovial structure that fills up the anterior knee compartment. It is richly vascularised and innervated. The precise function of the IFP is unknown. Studies have shown that it may play a role in the biomechanics of the knee or act as a store for reparative cells after injury (1).

Hoffa’s disease is not very frequent. It is often implicated as a source of anterior knee pain. These disea-
Differential diagnosis between synovial osteochondromatosis, synovial sarcoma, para-articular osteochondroma or synovial haemangioma could not be determined on CT scan.

MRI was not done due to technical problems. MRI could provide us with more presumptions of the type of the tumour, but it did not effect the decision for operation. Anyway the final diagnosis was coming out from the histopathological findings.

Patient was scheduled for surgical excision. Arthroscopic examination was performed in order to eliminate possible problems into the joint followed by open wide excision. A soft tissue tumour with dimensions of 5 x 4 x 1.5 cm was excised (Figures 4 and 5).

Histopathological evaluation revealed a fat and connective tissue, partially covered with atrophic synovia. Inside there was a nod formed by several big-
In suspected cases when we are not sure about diagnosis, we must followed the standard steps of diagnostics, always thinking of various differential diagnostic entities such as: pigmented villonodular synovitis, non-specific synovitis, lipoma, osteochondroma etc.

Yamashita H. presents a case of intra- and extra-articular localized pigmented villonodular synovitis. Also Ozalay M et al. refer localized pigmented villonodular synovitis originating from the extensor mechanism or fat pad (11, 12).

Gigis I reported a fibrolipoma with osseous and cartilaginous metaplasia of Hoffa’s fat pad (2).

Keser S et al. and Soler T et al. diagnosed intraarticular lipoma originating from infrapatellar fat pad (13, 14).

Turhan et al. reported a giant extrasynovial osteochondroma in the infrapatellar fat pad. The infrapatellar fat pad contains the entire progenitor cells for the development of an osteochondroma and chronic impingement may have promoting effect on this issue, thus, an osteochondroma may occur at the end-stage Hoffa’s disease (15).

Osti L et al. refer of synovial chondromatosis localized into the Hoffa’s fat pad.

Generally, treatment of all these tumours or tumour-like lesions located in the Hoffa’s fat pad is the same. It depends on anatomical distribution of the lesion. If the lesion is pedunculated and well-circumscribed an arthroscopic excision can be carried out. Diffuse lesions are difficult to be excise arthroscopically, so in these cases an open wide excision is recommended (16).

Dragoo JL and Ozalay M refer of evaluation and treatment of infrapatellar fat pad disorders. Its pathology is refractory to physical therapy and can be approached through a variety of operative treatments. Arthroscopic partial resection for IFP impingement and Hoffa’s disease has showed favourable results (1, 12).

**CONCLUSION**

Haemangiomas located in infrapatellar fat pad are rare.

Orthopaedic surgeons can often be confused by more common entities like chondromallatia of patella, synovitis of the knee, Hoffa’s disease, other soft tissue tumours, even lesion of meniscus. So, accurate diagnosis is very important for differentiation. Operative excision, arthroscopic or open wide, is definitive treatment for this benign tumour.
Sažetak

HEMANGIOM INFRAPATELARNOG MASNOG TKIVA — PRIKAZ SLUČAJA

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Predstavljamo slučaj pacijentkinje starosti 38 godina sa mekotkivnom masom u predelu desnog kolena u medijalnoj infrapatelarnoj regiji. Fleksija kolena je bila ograničena i bol prisutan pri maksimalnoj fleksiji. Ultrasonografija, standardna rentgenografija i CT su izvedeni za dijagnozu ovog tumora mekog tkiva. MRI nije izveden zbog tehničkih problema. MRI bi svakako dao više podataka o tipu tumora, ali nalaz ne bi uticao na odluku hirurga o operaciji. U svakom slučaju, konačna dijagnoza proizilazi iz histopatološkog nalaza.

Artroskopija je izvedena kako bi se izbegli mogući problemi u zglobu tokom široko otvorene ekscizije. Mekotkivni tumor dimenzija 5 x 4 x 1.5 cm je eksčidiran. Histopatološka analiza je pokazala da se radi o sinovijalnom hemangiomu lokalizovanom u infrapatelarnom masnom tkivu. Pacijent je bio bez tegoba nakon operacije.

Hemangiomi lokalizovani u infrapatelarnom masnom tkivu su retki. Ortopedi često mogu biti zburjeni češćim entitetima kao što su hondromalacija patele, sirovina kolena, Hoffa-ovo boleznjenje, drugi tumori mekih tkiva, čak i lezija meniskusa. Dakle, tačna dijagnoza je veoma važna za diferencijaciju. Ekscizija, artroskopska ili široko otvorena, je definitivan način lečenja ovog benignog tumora.

Kljucne reči: Hemangiom, infrapatelarno masno tkivo, koleno.

REFERENCES