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CASE REPORT

Giant knee "ganglion"—a case report

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Introduction

"Ganglion" is a cystic lesion that originates in the joint capsules or tendon sheaths usually containing clear liquid and jelly. The lesions are composed of cystic space with a wall containing dense fibrous and adipose tissue without epithelial lining. Rare occurrence [1–5] in the general population (about 1 %) [2] uncommonly produces specific symptoms or shows classic signs. These lesions frequently occur on the back of the wrist, palm, and dorsum/lateral foot [2]; however, they are rare in locations such as the shoulder, peri-acetabular region, or knee [1, 6]. When they do occur, ganglions are usually small, whereas very few cases of giant ganglion are reported [3, 7, 8].

Although the etiology is still unclear, it is thought to result from myxoid degeneration [1, 2]. The diagnosis is usually clinical and by imaging [5, 6], and biopsy is rarely necessary [1, 2]. The treatment of choice is complete excision with free margin [2, 8].

Case presentation

The authors present the case of a male patient, 47 years old, who had a left infrapatellar mass with progressive growth of 5 years of evolution, which is spherical, measuring approximately 10 cm in diameter (Fig. 1). No other signs or symptoms were observed, nor association with other changes to the clinical examination of the knee.

It was investigated initially by ultrasound and computed tomography (CT). The lesion was best characterized by magnetic resonance imaging (MRI), describing the presence of a large nodule measuring 8 cm in longitudinal diameter in the anterior left knee, well delineated by thick surrounding regular wall. Imaging revealed hyperintensity in T2 and slight hyperintensity in T1, with internal debris that revealed hyposignal in different sequences, not enhanced after contrast administration.

This lesion was located within the subcutaneous fat, independent of patellar tendon or bone structures (Fig. 2).

The patient was proposed for surgical excision under spinal anesthesia. Cross-cutting approach was carried out (Fig. 3a), followed by excision with skin flap. Cleavage plane was found throughout the extent of injury.

The postoperative period was good with the patient discharged at the third day. Four weeks after, the patient was completely asymptomatic and returned to his usual active life.

The specimen (Fig. 3b) was sent for histological examination; it has smooth outer surface and partially surrounded by adipose tissue, with a cavity containing blood clots and wall composing of dense fibrous tissue, without epithelial lining (Fig. 3c).

Fig. 1 Macroscopic view of the ganglion

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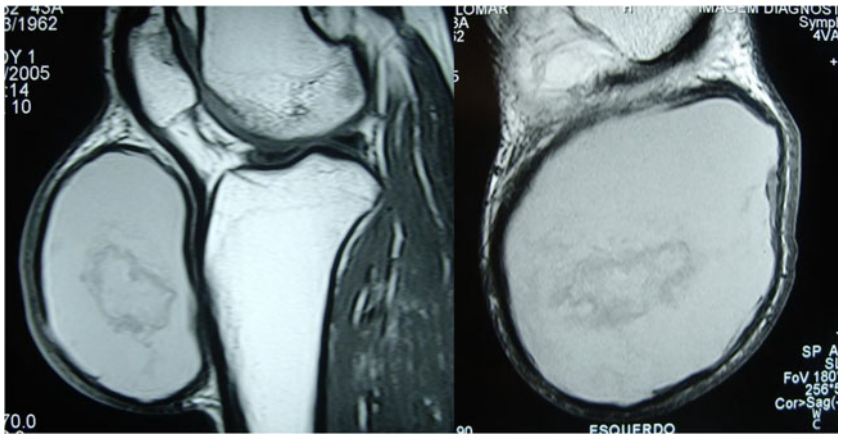

Fig. 2 MRI showing well-defined lesion: sagittal and axial

Fig. 3 **a** Cross-cutting approach. **b** Lesion after resection. **c** Histological view of the specimen

Discussion

The case presented is uncommon either by location or by the size of the lesion. As a slow-growing lesion, it is justified by elapsed time to treatment.

The MRI examination was more accurate to describe the injury and its relations with the neighboring structures. However, it was not capable to make an accurate preoperative diagnosis of the lesion. This is due to known limitations of the technique, but it did not interfere with the effectiveness of the treatment.

According to the literature, it was considered unnecessary to carry out a diagnostic biopsy [1, 2]. Our work confirms this option for treating these lesions, given the irrelevance of its results for the preoperative planning.

Conclusion

The giant ganglion of the knee is an extremely rare injury. The preoperative diagnosis is not always easy; however, it is a benign lesion, for which surgical excision is an effective treatment.

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Conflict of interest The authors declare that they have no conflict of interest.

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