CASE REPORT

A 70-year-old man presented at our institution with functional limitation and bilateral gonalgia. The X-ray showed aspects compatible with bilateral tricompartmental gonarthrosis (grade IV). We proposed the patient to total left knee arthroplasty.

DISCUSSION

Pigmented villonodular synovitis (PVNS) is a rare (1.8 per million) proliferative of the synovium. The knee is the most commonly affected site (28–70%). Despite being a benign condition, PVNS is often aggressive, resulting in secondary osteoarthritis. Monoarticular involvement occurs in two forms: localized and diffuse. The latter is more common, with a high recurrence rate [1].

Intraoperatively, we verified after incision of the fascia and opening to the articular space, an exuberant brownish/reddish fibroelastic mass that filled the entire articular space (Figure 1).

This finding was in favor of diffuse intra-articular pigmented villonodular synovitis. We performed extended synovectomy and sent the piece for pathological analysis. After synovectomy, we continued to perform total knee arthroplasty. The anatomopathological results confirmed the diagnostic hypothesis (Figure 2).

This rare condition usually appears at younger ages [1, 2] and progresses with pain and recurrent hemorrhrosis and may produce degenerative changes [1–3]. In these situations, the recommended treatment is synovectomy [1–3] and total knee arthroplasty [3]. Given this finding, the surgeons maintained the surgical proposal of total arthroplasty, previously performing an extensive synovectomy, recommended in this situation.

In this case PVNS was just an exuberant finding that did not change treatment (Figure 3).

Figure 1: Lush brown fibroelastic mass in the knee joint space.

Figure 2: Pathology of lesion biopsy (Hematoxylin and eosin staining): (A) Hyperplastic synovial composed of macrophages containing hemosiderin; (B) Alveolar fissures and spaces lined with synovial cells, multinucleated giant cells and epithelioid cells.
CONCLUSION

Pigmented villonodular synovitis is a diagnostic challenge due to the low specificity of its symptoms and subtle radiological characteristics, constituting a pathology that should be considered in the management of gonalgia, especially in young adults. Surgical excision is the gold standard method in the treatment of PVNS, and the role of arthroscopy in treating the diffuse form of PVNS is debatable. Total arthroplasty should be considered in cases of persistent relapses and advanced osteoarthritis. In this present case, PVNS was an accidental finding during the left knee joint replacement procedure. The surgeons maintained the surgical proposal of total arthroplasty, previously performing an extensive synovectomy, recommended in this situation. After eight months postoperatively, the patient is well, without pain complaints and with full range of motion.

Keywords: Diffuse pigmented villonodular synovitis, Gonalgia, Secondary osteoarthritis, Synovectomy

REFERENCES


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Jorge Sena – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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Guarantor of Submission

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Conflict of Interest
Authors declare no conflict of interest.

Data Availability
All relevant data are within the paper and its Supporting Information files.

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