PIGMENTED VILLONODULAR SYNOVITIS: CASE REPORT

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ABSTRACT

Pigmented villonodular synovitis is a benign, proliferative synovial disease characterized by a nodule, sessile, pedunculated disease of unknown etiology. Its annual incidence is 1.8 / 100,000 affects the 3rd and 4th decade. In most cases the symptoms are non-specific, it is monoarticular and the knee is the most affected segment. It was concluded that ultrasonography showed to be an effective imaging technique in the detection of villous lesion.

KEYWORDS: SYNOVIA, INTRA-ARTICULAR, BONE, VILLONODULAR, HOFFA.

INTRODUCTION

Pigmented villonodular synovitis (PVNS) is a benign and unusual clinical disease of unknown etiology, characterized by an excessive proliferation of the synovial membranes, including joints, bursae and tendon sheaths[1-4].

In 1852, Chassaignac reported the first case of nodular lesion in the flexor tendon sheath of the middle and index fingers1. Recently, the World Health Organization defined that PVNS and giant cell tumor are equivalent terms [2, 4].

CASE REPORT

Female patient, 26 years old, presented with swelling in the anterolateral region of the right knee for three months (Figure1), without complaints of pain or joint block. Orthopedic physical examination with good alignment of the lower limbs, meniscal and ligament tests negative and absence of signs of joint instability.

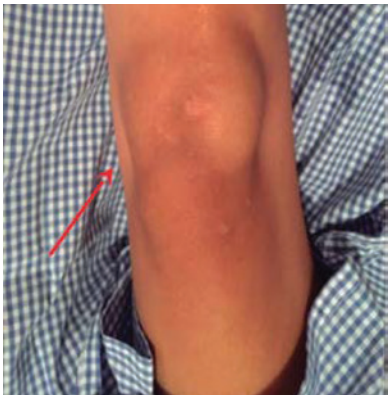

Figure. 1. Swelling in the anterolateral right knee.

Ultrasonography was performed, which showed a solid intra-articular, hypoechogenic formation with dimensions of 3.5 x 1.6 x 3.8 cm, expanding to Hoffa's fat (Figs. 2 and 3) and vascularised in the Spectral Doppler ultrasound. (Figure 4 and 5).

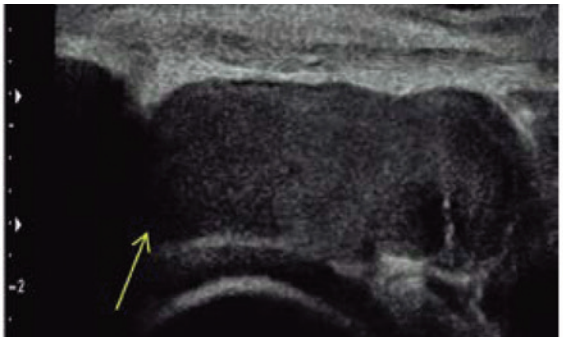

Figure2. Hypoechogenic transverse nodule.

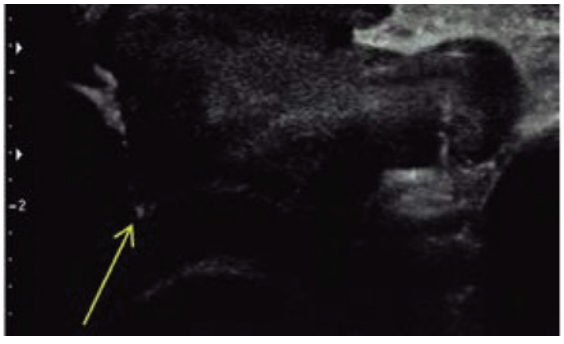

Figure3. Hypoechogenic longitudinal nodule.

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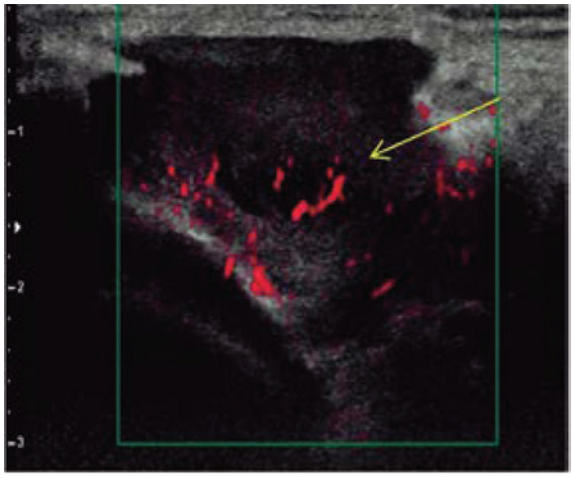

Figure4. Vascularised nodule seen with amplitude Doppler.

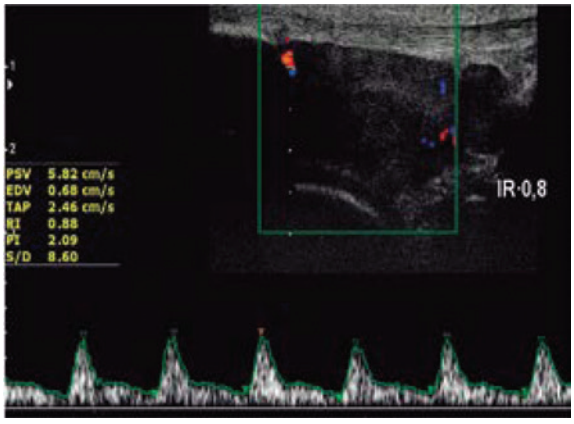

Figure5. Nodule with marked peak systolic velocity.

Magnetic resonance imaging showed a heterogeneous mass with low uptake in T1 and T2. The anatomopathological result was compatible with PVNS. Treatment with arthroscopic resection was successful.

DISCUSSION

PVNS is a rare disease, usually monoarticular, with the knee being the most affected joint in 80% of cases, followed by the hip and ankle. Incidence of 1.8 /100,000 people, in the 3rd and 4th decade[1,3,6].

The most frequent clinical signs are the slow insidious appearance of pain, edema and joint stiffness[6]. It has two presentations:

a) diffuse: fully involving the synovial lining of large joints, such as the knee and hip; b) local: sessile villonodular affecting small joints of hands and feet[5, 7].

Differential diagnosis is made with synovial sarcoma, synovial chondromatosis, hemangioma and lipoma arborescens[4].

The most appropriate imaging method for its diagnosis is magnetic resonance imaging, since intra-articular extension and bone involvement cannot be accurately assessed by ultrasound. Ultrasonography can assist in the diagnosis, but it is not specific [4,7].

CONCLUSION

Pigmented villonodular synovitis, though uncommon, is benign and its diagnosis is histopathological. However, ultrasonography has proved to be a sensitive method for detecting the intra-articular expansive process.

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