

Van Neck Odelber disease. A case report

Enfermedad de Van Neck Odelberg. Presentación de caso

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Summary

Ischiopubic osteochondritis or Van Neck's disease is a rare benign bone pathology that affects children under 16 years of age. Classically it is described as the presence of pain and limitation of movement in the ischiopubic region associated with bone edema and asymmetry in the synchondrosis. Knowledge of this entity is important in the diagnostic evaluation of limping in children. The aim of this article is to present the main findings of Van Neck disease and its differential diagnoses based on a clinical case.

Key words (MeSH)

Osteochondritis
Pubic symphysis
Magnetic resonance imaging

Palabras clave (DeCS)

Osteocondritis
Sínfisis pubiana
Imagen por resonancia magnética

Resumen

La osteocondritis isquiopúbica o enfermedad de Van Neck es una patología ósea benigna infrecuente que afecta a menores de 16 años de edad. Clásicamente, se describe como dolor y limitación del movimiento en la región isquiopúbica asociados a edema óseo y asimetría en la sincondrosis. El conocimiento de esta entidad es importante en la orientación diagnóstica de cojera en niños. El objetivo de este artículo es presentar los hallazgos principales de la enfermedad de Van Neck y sus diagnósticos diferenciales a partir de un caso clínico.

Introduction

Ischiopubic synchondrosis is a temporary joint of hyaline cartilage that fuses, at pubertal age, from two ossification centers (1). Generally this process is asymptomatic; however, it has been described that it can generate groin pain, limitation of movement and lameness (2), which configures Van Neck disease or ischiopubic osteochondritis, an entity that consists of a benign skeletal alteration, infrequent; its epidemiology has not been documented. The aim of this article is to evaluate the main characteristics of Van Neck-Odelberg disease based on the presentation of a case.

Case report

12-year-old male patient, who consulted for pain in the left inguinal region after sports practice, with increasing pain intensity in hip extension and abduction movements. He denied a history of acute trauma, with no fever or edema in the extremity.

Magnetic resonance imaging (MRI) of the hip was performed in a 1.5 Tesla equipment (Phillips Medical System) T1, T2 and STIR sequences, in which prominence of the left ischiopubic synchondrosis was found with mild edema of the proximal bone marrow and the ipsilateral obturator externus muscle, findings compatible with Van Neck disease; among the differential diagnoses trauma or infection were considered (Figures 1 to 4). Laboratory tests were normal and she evolved favorably with conservative treatment of restriction of physical activity.

Discussion

In 1924, Odelberg and van Neck described ischiopubic osteochondritis for the first time, which allowed differentiating this pathology from other etiologies such as trauma and infection (3). This entity occurs mostly in children and adolescents between 4 and 16 years of age (4). During the process of ossification, the synchondrosis may present asymmetry in its size or prominence due to the mechanical stress to which it is subjected and cause pain. The diagnosis is clinical and imaging studies confirm the etiological approach (5).

The imaging findings are described in conventional radiology as an area of radiolucency in the ischiopubic synchondrosis that may simulate mass and/or thickening. The main differential diagnoses include stress fractures, infectious processes and neoplasms; therefore, MRI plays an important role in guiding the diagnosis. In this imaging modality, the main characteristics of osteochondritis are bone and soft tissue edema in the affected synchondrosis, asymmetry in the closure of the synchondrosis or prominence of one of them, with high signal in sequences with T2 information, fat saturation or STIR and low signal in T1-weighted sequences (6). On the other hand, in stress fractures there is evidence in MRI of discontinuity of the cortical cortex with

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sharp, irregular edges, associated to the antecedent of trauma (7). A diagnosis of osteomyelitis will be oriented towards a clinical picture with fever, elevation of acute phase reactants and inflammatory changes in the tissue with or without abscess (2). The treatment of this entity is conservative, restricting physical activity.

Conclusions

Van Neck osteochondritis is a rare entity, but it should be considered among the differential diagnoses of gait disturbance and pain in children and adolescents. Diagnostic imaging allows confirmation of clinical suspicion and avoidance of invasive studies or treatment. The management of this pathology is predominantly conservative.

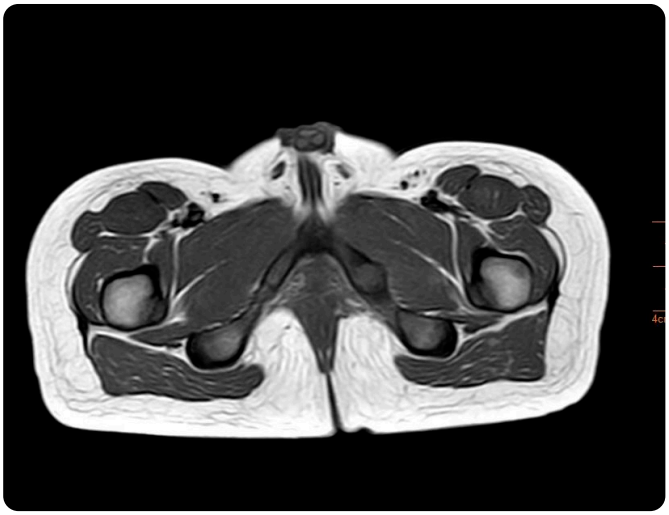
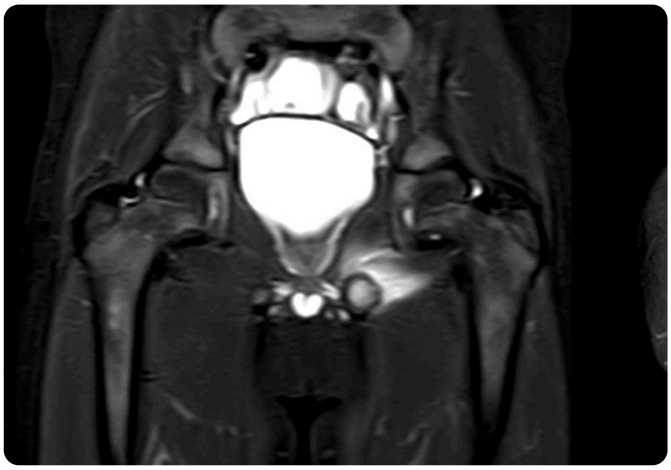


Figure 1. Pelvis MRI, axial T1 sequence. Prominence of the left ischiopubic synchondrosis with intact cortex.



Figure 2. MRI of the pelvis, coronal T2 sequence. Prominence of the left ischiopubic synchondrosis without other alteration.



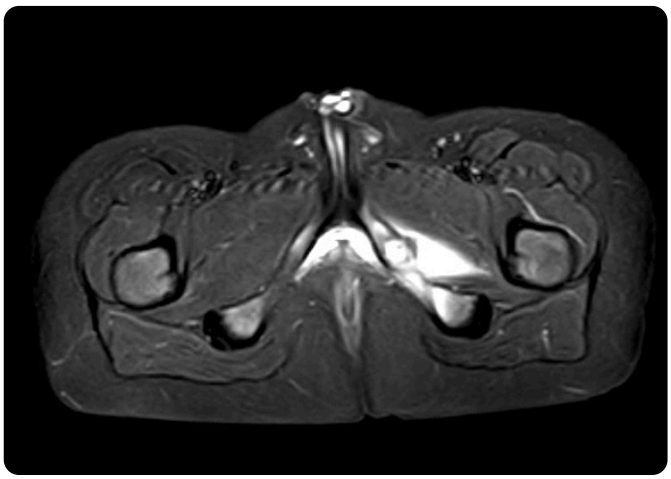


Figure 3. Pelvis MRI, coronal and axial STIR sequence. Prominence of the left ischiopubic synchondrosis associated with increased signal in the bone marrow and adjacent soft tissues.

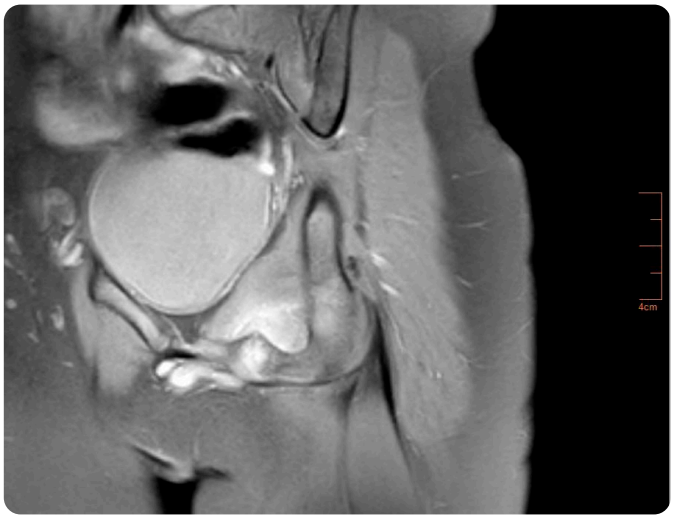


Figure 4. Left hip MRI, coronal SPIR sequence. Prominence of the left ischiopubic synchondrosis associated with increased signal in the bone marrow and adjacent soft tissues.

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