



Case Report

Congenital dislocation of the patella – clinical case[☆]



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ABSTRACT

Congenital patellar dislocation is a rare condition in which the patella is permanently dislocated and cannot be reduced manually. The patella develops normally as a sesamoid bone of the femur. This congenital dislocation results from failure of the internal rotation of the myotome that forms the femur, quadriceps muscle and extensor apparatus. It usually manifests immediately after birth, although in some rare cases, the diagnosis may be delayed until adolescence or adulthood. Early diagnosis is important, thereby allowing surgical correction and avoiding late sequelae, including early degenerative changes in the knee. A case of permanent dislocation of the patella is presented here, in a female child aged seven years.

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Luxação congênita da patela – caso clínico

RESUMO

A luxação congênita da patela é uma patologia rara, em que a patela se encontra permanentemente luxada e manualmente irredutível. A patela desenvolve-se normalmente como um osso sesamoide do fêmur. A luxação congênita da patela resulta da falência da rotação interna do miótomo que forma o fêmur, músculo quadricípite e o aparelho extensor. Usualmente manifesta-se imediatamente após o nascimento, embora em alguns casos raros o diagnóstico possa ser adiado até a adolescência/idade adulta. O diagnóstico precoce é importante, permite a correção cirúrgica, evita as sequelas tardias, notadamente alterações degenerativas precoces do joelho. É apresentado um caso de luxação permanente da patela, numa criança de sexo feminino, com sete anos.

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Introduction

Congenital dislocation of the patella comprises a pathological condition of permanent lateral dislocation of this bone. It is impossible to reduce it through manual maneuvers. It may arise in isolation, associated with lower-limb malformations, or within the context of a polymalformative syndrome.¹

It is generally diagnosed at birth. These infants present genu valgum and contracture of the flexed knee, in association with external rotation of the tibia. When these deformities are not present, this pathological condition may not be diagnosed until adulthood is reached.²

Radiological examinations, especially X-rays (XR), computed tomography (CT) and magnetic resonance imaging (MRI) are essential for identifying and characterizing lesions associated with permanent patellar dislocation (trochlear dysplasia or chondral lesions). However, the diagnosis for this pathological condition is essentially clinical.³

This condition can only be corrected through a surgical procedure. Several options exist. Early correction is important for avoiding sequelae.⁴

Case report

The patient was a seven-year-old white girl without any relevant antecedents who was examined in an external pediatric orthopedics consultation due to deformity of the left knee. She did not have any previous history of trauma. Her parents said that there had not been any initial episode of patellar dislocation.

Upon objective examination, she presented irreducible lateral dislocation of the left patella. It was observed that, during active and passive movements, her extension and flexion did not present any amplitude deficits and were not painful. She presented grade IV strength deficit during extension of the left lower limb.

Knee XR was performed under conditions of weight-bearing (Fig. 1) and found lateral patellar dislocation. The lateral XR on the left knee did not show dislocation (Fig. 2). The axial XR on the left patella again showed lateral dislocation of the patella, in association with trochlear dysplasia (Fig. 3). MRI on the left knee (Fig. 4) confirmed that in addition to the lateral dislocation of the left patella, there was dysplasia of the trochlea, but without other associated lesions. The patient was referred for a pediatric consultation in order to rule out polymalformative syndrome.

Surgical correction of the dislocation was performed, using the technique described by Stanisavljevic, and it followed an uneventful course. Plaster-cast immobilization from the lower leg to the foot was used for six weeks.

Currently, the patient is being followed up through external pediatric orthopedic consultations. The patella is now centered, without any episodes of dislocation so far, and the strength of the left lower limb has recovered (grade V). The leg presents flexion of 140° and an extension deficit of 5°.



Fig. 1 – X-ray with weight-bearing on both knees.

Discussion

The congenital abnormalities of the patella include its absence, hypoplasia and permanent dislocation.

Permanent congenital dislocation is a pathological condition in which the patella remains constantly dislocated, even when the leg is extended. The patella remained fixed on the lateral face of the femoral condyle. The dislocation is irreducible, unless surgical techniques are used. It is a rare pathological condition of unknown incidence,⁵ which is generally detected in the first decade of life. It usually affects both legs and in most cases is associated with polymalformative



Fig. 2 – X-ray of the left knee in lateral view.

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