

Osgood schlatter disease: case report!

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Abstract

Osgood-Schlatter disease is a painful knee condition that affects adolescents, particularly athletes. The etiology of this common condition is unknown. This disease, whose diagnosis is mainly clinical, is manifested by pain and swelling of the tibial tuberosity triggered and aggravated by sports activities. X-ray, ultrasound or MRI examinations are not necessary for diagnosis. The treatment is based on the cessation of sports activities, analgesics and occasionally physiotherapy. Surgery is almost never used.

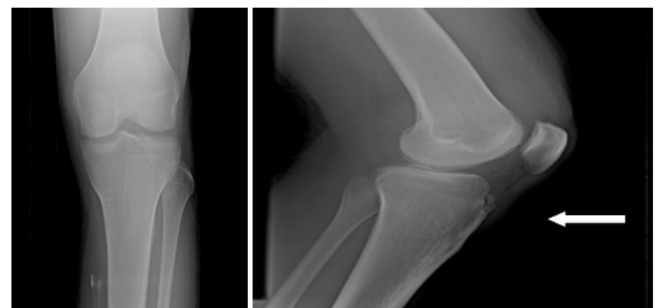
Keywords: Osgood-Schlatter; osteochondrosis; tibial tuberosity; patellar tendon; knee radiography.

Introduction

Osgood-Schlatter disease (OSD) is a painful inflammation of the bone and cartilage of the tibial tuberosity. First described by Osgood and Shlatter in the early 1900s as a group of growth plate disorders occurring in children and adolescents who are growing rapidly and who regularly participate in sports. The main symptoms are: pain, which usually gets worse with activity and gets better with rest, swelling and tenderness in the tibial tuberosity just below the kneecap. The positive diagnosis is based on the clinic and sometimes on the x-ray of the knee which is not systematic.

Case presentation

We report the case of a 21-year-old patient with no significant pathological history who presented for pain in the anterior part of the left knee with partial functional impotence evolving for 3 days, the patient reported that he was athlete and that he had taken part in a football match the previous week without any notion of specific trauma. The physical examination of the left knee showed slight swelling of the soft tissues and tenderness above the tibial tubercle, all progressing in a context of apyrexia and conservation of general condition. the x-ray of the knee showed sclerosis and fragmentation of the tibial tuberosity with swelling of the soft tissues. These characteristic findings led to the diagnosis of Osgood-Schalter disease.



X-ray of the left knee (F+P): showing an ossicle detached from the anterior tibial tuberosity better visible on the profile X-ray.

Discussion

Osgood-Schlatter disease or osteochondrosis of the tibial tuberosity is a traction apophysitis of the tibial tuberosity caused by repetitive traction of the patellar tendon at its attachment to the tibial tuberosity. It is one of the most common causes of anterior knee pain in children and adolescents especially those who participate in sports that involve jumping and running. It is rarely seen in adulthood and the mechanism of injury is usually related to direct impact on the tubercle rather than contraction of the quadriceps as seen in adolescents.

In the past, Osgood-Schlatter disease primarily affected the male sex, but now with the increasing number of young female athletes, several studies show no significant difference in the prevalence of the disease between males and females, with predominant age between 8 and 13 years for girls, and 12

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and 15 years for boys. The patient's history and physical examination are usually sufficient to make the diagnosis. The main symptom is pain focused on the tibial tuberosity and the distal patellar tendon, occurring during activity and subsiding during rest, in a patient with a history of trauma during sports activities such as basketball, volleyball, gymnastics and football. If the pain worsens at night or at rest, other diagnoses should be considered such as Sinding-Larsen-Johansson disease, patello-femoral syndrome, patellar dislocation or subluxation, patellar chondromalacia, avulsion fracture of the tibial tuberosity, or tumoral and infectious pathologies. Radiological exploration of Osgood Schlatter's disease is not essential for the diagnosis, and it will only be requested if there is a clinical doubt. It is based on the standard X-ray of the knee from the front, but especially from the side, which makes it possible to highlight a fragmentation of the tibial tuberosity, with an edema of the soft tissues opposite. She also has an interest in the classification of the disease in late adolescence into 4 stages according to Ehrenborg and Lagergren: stage 1: Normal X-ray; stage 2: Minor deformity of the anterior tibial tuberosity; stage 3: Prominent tibial tuberosity; stage 4: Tibial tuberosity with a separated ossicle. MRI and ultrasound are not necessary for the diagnosis and management of these patients. The only indication for an MRI is the suspicion of a tumor pathology, exceptional at this anatomical location. Therapeutic management is based mainly on rest and cessation of sporting activity and sometimes the prescription of analgesics based on paracetamol or non-steroidal anti-inflammatory drugs to calm the pain. Orthopedic treatment is rarely indicated because it risks causing amyotrophy and stiffness of the knee, and it is recommended especially for adolescents who refuse sports leave or in the case of a pain crisis that does not respond to analgesic treatments and cessation of sporting activities. As for surgery, it is very rarely indicated and it should never be performed before the end of growth because there is a risk of seeing a genu recurvatum appear, by iatrogenic fusion of the growth cartilage of the tibial tuberosity, and only cases with very debilitating pain may require surgery.

Conclusion

Osgood-Schlatter disease is a benign and common disease in very active adolescents, the positive diagnosis of which is based mainly on the history and clinical examination of the patient, the treatment includes rest and analgesics, and the long prognosis term is often excellent.

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