



Acute Avulsion Fracture of the Lesser Trochanter in Children

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Received date: 07 December 2021; Accepted date: 14 December 2021; Published date: 21 December 2021

Citation: Sabounji SM, Gueye D, Fall M, Ngom G (2021). Acute Avulsion Fracture of the Lesser Trochanter in Children. SunText Rev Pediatr Care 2(2): 124.

DOI: <https://doi.org/10.51737/2766-5216.2021.024>

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Abstract

Avulsion fracture of the lesser trochanter in children is an uncommon injury. We report a case of a 14 years old boy who had an acute avulsion fracture of the lesser trochanter after a running competition at school. The diagnosis was made by clinical pain in the hip region and confirmed on X-rays. The treatment was conservative with a good outcome.

Keywords: Avulsion fracture; Lesser trochanter; Children; Adolescent; Injury

Introduction

Avulsion fracture of the lesser trochanter is a rare injury in children. Only few cases were reported in the literature. We report a case of a 14 years old boy who presented a painful leg pain after a running competition at school.

Observation

A 14 years-old boy was admitted to the emergency room for a painful left leg after a school accident. The patient complained of acute pain in the hip region. The mechanism was a fall during a running competition at school. Active straight leg rise was impossible. Active flexion was painful as well as palpation over the proximal medial thigh. Rotations of the hip were painful. No other particularities were noted. X-rays of the pelvis showed avulsion-fracture of the lesser trochanter with a displacement < 1cm. A conservative treatment was established: analgesics and non-weight bearing with crutches for 3weeks. Physical therapy and self-rehabilitation were implemented for 4weeks with a good outcome (Figures 1,2).

Discussion

Avulsion fracture of the lesser trochanter in children is an uncommon injury [1,2]. It represents only 0.3 percent of proximal femur fractures and <1% of hip injuries [3,4]. It occurs between 8 and 16 years of age, most commonly at 14 years and usually seen prior to the fusion of the apophysis [5,6].

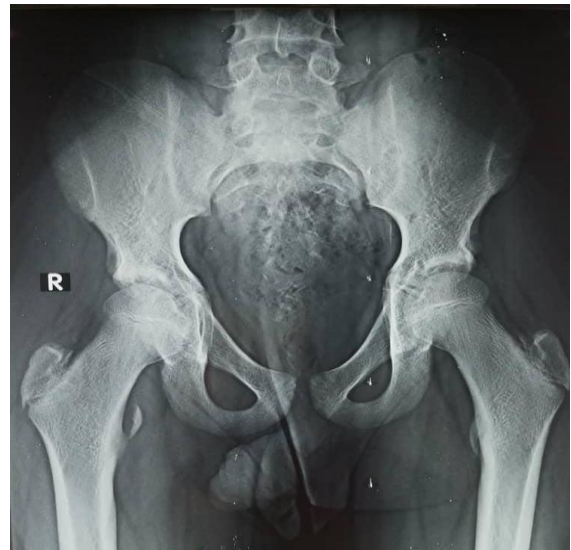


Figure 1: Anteroposterior radiograph of the pelvis showing an avulsion fracture of lesser trochanter on the right side.

This injury is a result of a sudden and forceful contraction of the iliopsoas muscle. Age of patient and mechanism of injury can suggest the diagnosis. For some authors, this kind of injury is often misinterpreted as a muscle strain and no radiographs are usually obtained during first consultation [7]. There are also cases with a prodromal pain in advance of an avulsion fracture of the lesser trochanter. We think that avulsion fracture of the lesser trochanter should be highly suspected after post-traumatic hip pain, especially in children between 12 to 15 years.

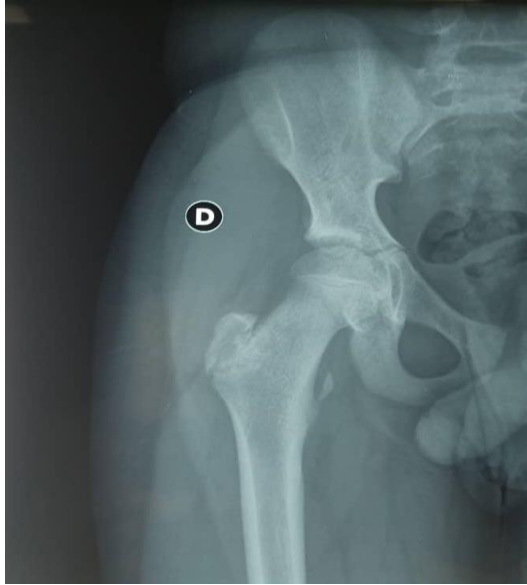


Figure 2: Proximal displacement of fracture fragment.

The diagnosis is confirmed by conventional radiography. Due to the pull of the iliopsoas tendon, the avulsed fragment is most frequently displaced proximally. Non-operative approach is the standard treatment and outcomes are usually good [8].

Acknowledgment

The authors received no financial support for the research, authorship, and/or publication of this article.

Salsabil Mohamed Sabounji and Doudou Gueye: Contributed to the diagnosis and wrote the first draft of the manuscript, oversaw care of the patient.

Mbaye Fall and Gabriel Ngom: contributed to data collection, supervised the revision of the manuscript.

Conflicts of Interest

All authors have no conflicts of interest.

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