

Case Presentation

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#Non-Accidental Trauma Care Team

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Case Resolution on page 604.

Non-Accidental Trauma

ABSTRACT

We present the case of an 18-month-old boy with multiple fractures resulting from non-accidental trauma, after being dragged down a flight of stairs by his caregiver. The radiological protocol used in our institution for suspected non-accidental trauma is described, along with the diagnostic process and the orthopedic and social management implemented.

Keywords: Non-accidental trauma; pelvic fracture; hip epiphysiolysis; children.

Level of Evidence: IV

Trauma no accidental

RESUMEN

Se presenta el caso de un niño de 18 meses con múltiples fracturas secundarias a un trauma no accidental, al ser arrastrado por las escaleras, por su cuidadora. Se define el protocolo radiológico utilizado en nuestra institución para los casos de trauma no accidental, su diagnóstico y el tratamiento ortopédico y social.

Palabras clave: Trauma no accidental; fractura de pelvis; epifisiólisis de cadera; niños.

Nivel de Evidencia: IV

INTRODUCTION

An 18-month-old boy was brought unconscious to the clinic by his grandmother, who reported that he had been dragged down the stairs by his caregiver approximately 45 minutes earlier. Bruises were observed on all four limbs and on the lower abdomen, in different stages of evolution. He was treated in the emergency department with suspected non-accidental trauma. After stabilizing the child and given the clinical suspicion, anteroposterior pelvic radiographs were requested. The Radiological Protocol for Children (Table) was applied.

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Table. Areas to be examined and recommended projections.

Skull*	Anteroposterior and lateral; additional Towne projection if clinically indicated
Thorax	Anteroposterior including clavicles; oblique projections of both rib cages
Abdomen	Includes pelvis and hips
Spine	Lateral projection of the cervical, thoracic, and lumbar regions
Extremities	Anteroposterior view of both humeri, both forearms, femurs, tibiae, and fibulae Hands: anterior Feet: dorsoplantar

*Skull radiographs should be taken even if a CT scan has been performed.

FINDINGS AND INTERPRETATION OF IMAGING STUDIES

Of all the radiographs obtained, the AP pelvic radiograph revealed fractures consistent with polytrauma (Figure 1). A type C pelvic fracture according to the AO classification was observed, along with an avulsion of the iliac wing and a type A fracture within the same classification.¹ In the left proximal femoral epiphysis, a type I (trans-epiphyseal) epiphysiolysis was identified according to the Delbet classification (Figures 2 and 3).²



Figure 1. Anteroposterior pelvic radiograph showing vertical and rotational “open-book” displacement of the pelvic ring, avulsion of the right iliac wing, and Delbet type I hip epiphysiolysis of the ipsilateral femoral head, as described by Colonna.

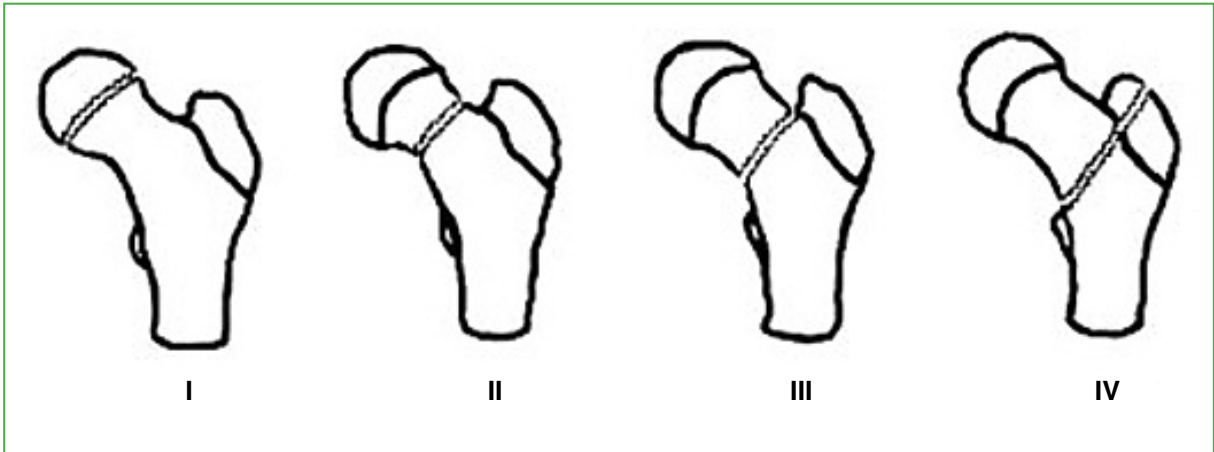


Figure 2. Delbet fracture classification.

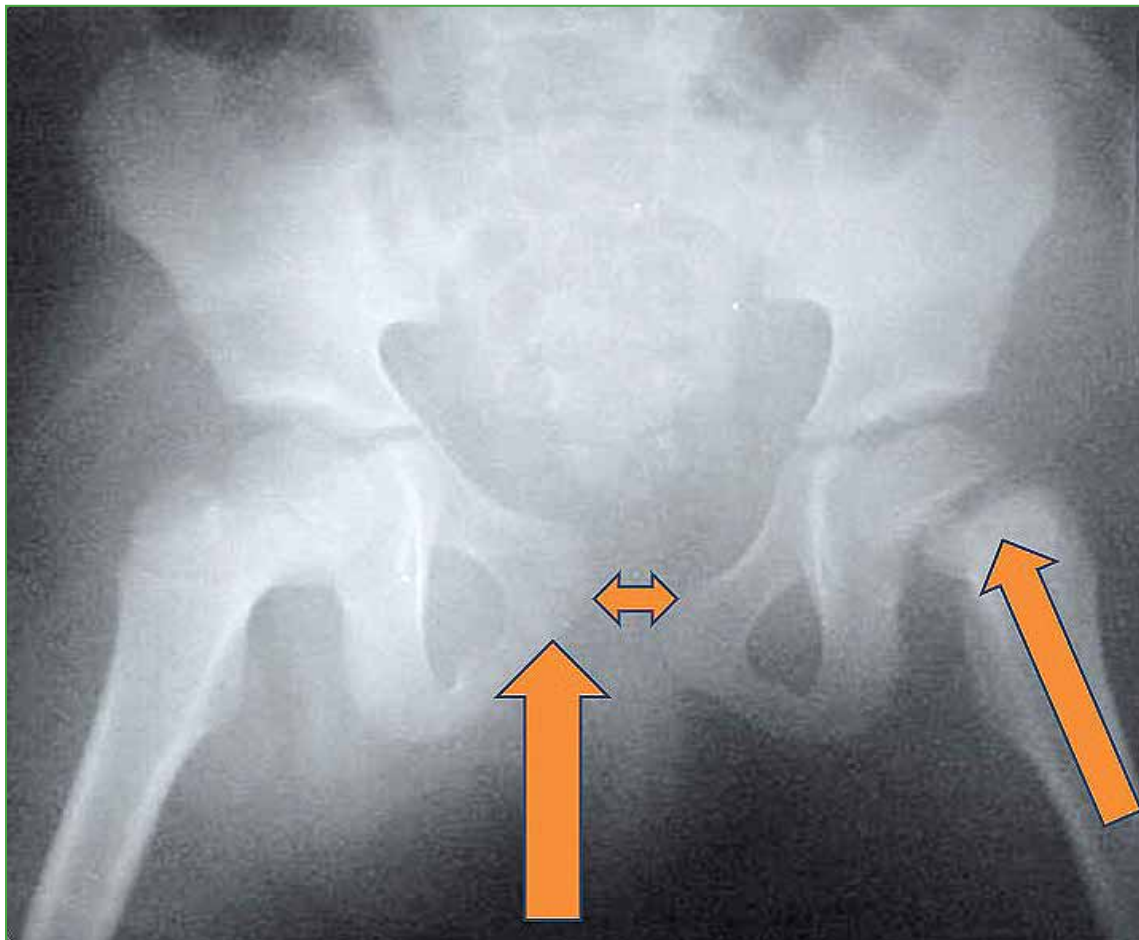


Figure 3. Anteroposterior pelvic radiograph. Each arrow indicates one of the multiple fracture displacements identified.

Conflicts of interest: The authors declare no conflicts of interest.

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