

Postero-External Dislocations of the Bilateral Elbow Associated with Detachment of the Medial Epicondyls in Children: About a Case Report

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DOI: [10.36347/sjmc.2023.v11i07.015](https://doi.org/10.36347/sjmc.2023.v11i07.015)

| Received: 03.04.2023 | Accepted: 10.05.2023 | Published: 19.07.2023

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Abstract

Case Report

Posterolateral dislocations of the bilateral elbow associated with medial epicondyle detachment in children are rare lesions following high-energy trauma and are more often observed in children elbow dislocation associated with unilateral epicondyle detachment but bilateral remains exceptional. Constitute a pediatric emergency and ineffective treatment causes instability of the elbow and pseudarthrosis of the lateral epicondyle. We report the case of a case of bilateral posterolateral elbow dislocation associated with detachment of the medial epicondyles. This is an 11-year-old patient, admitted for blunt trauma to the bilateral elbows, the clinical examination noted edema and deformities of both elbows. Radiological assessment showed bilateral posterolateral dislocation of the elbows associated with stage IV medial epicondyle detachments according to the Watson-Jones classification. The patient underwent closed manual reduction and open-hearth pinning and then BABP cast; for right medial epicondyle and open screwing for left medial epicondyle and then BABP cast. Immediate and remote postoperative control deemed satisfactory, splints removed at 3 weeks, elbow rehabilitation was prescribed, osteosynthesis materials removed at 6 weeks with good clinical results.

Keywords: Trauma, postero-external dislocation, detachment, deformity, elbows, pseudarthrosis.

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INTRODUCTION

Elbow dislocation is a relatively rare lesion in children, represents 3% to 6% of elbow injuries, often associated with fractures so the most common is unilateral, postero-external dislocations of the bilateral elbow associated with epicondyle detachments medial remains exceptional.

PATIENT AND OBSERVATION

This is an 11-year-old child, victim of a sports accident, during a gymnastic exercise she would have fallen from a cimeric bar with on both elbows, the musculoskeletal examination objectified swellings, deformities and functional impotence of both elbows, vasculo-nervous examination being unremarkable. Elbow X-rays revealed bilateral posterolateral elbow dislocations associated with stage IV medial epicondyle

detachments according to the Watson-Jones classification (Figures 1 and 2). The child admitted to the block benefited from a reduction under general anesthesia with intraoperative scopic control objectifying good reductions of the dislocations and detachments of the medial epicondyles judged to be stage III after the reductions (figures 3 and 4) justifying surgical treatment for access. posteromedial approach (figure 5) and placement of two pins for the right side and two screws for the left side and satisfactory immediate post-operative control then placement of the BABP casts (figures 6 and 7). Removal of the casts at 3 weeks followed by rehabilitation, at 6 weeks removal of the osteosynthesis materials, with a follow-up of 6 months the clinical and radiological results are considered very satisfactory with the complete extensions of two elbows and flexion of 160°.



Figure 1: Dislocation of the right elbow associated with detachment of the medial epicondyle

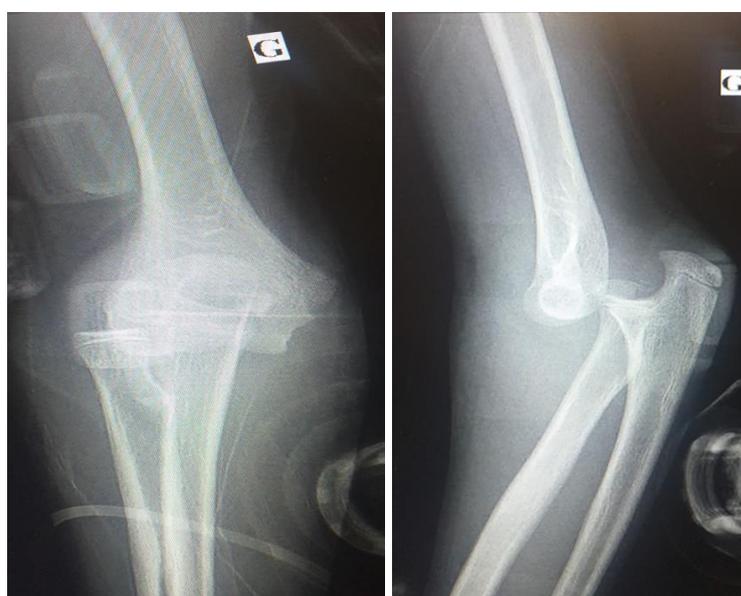


Figure 2: Dislocation of the left elbow associated with detachment of the medial epicondyle



Figure 3: Reduction of the right elbow under scopic control

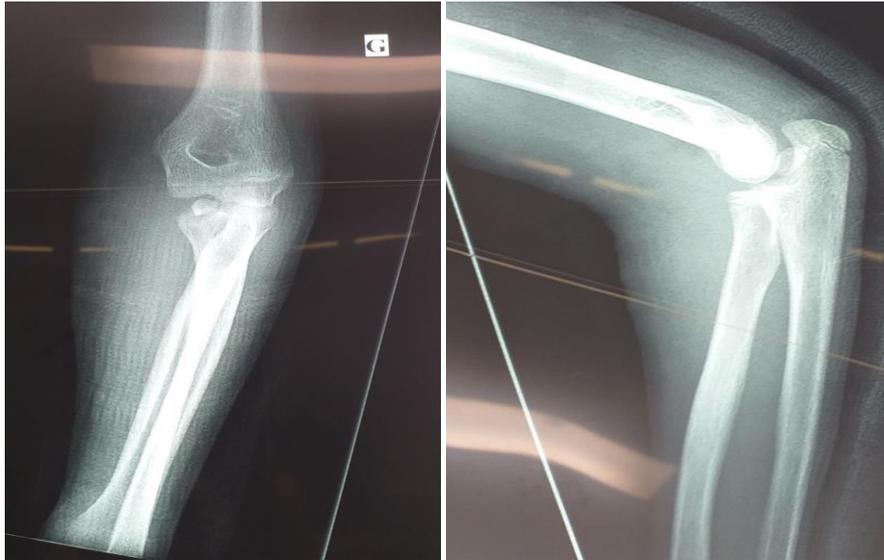


Figure 4: Reduction of the left elbow under scopic control

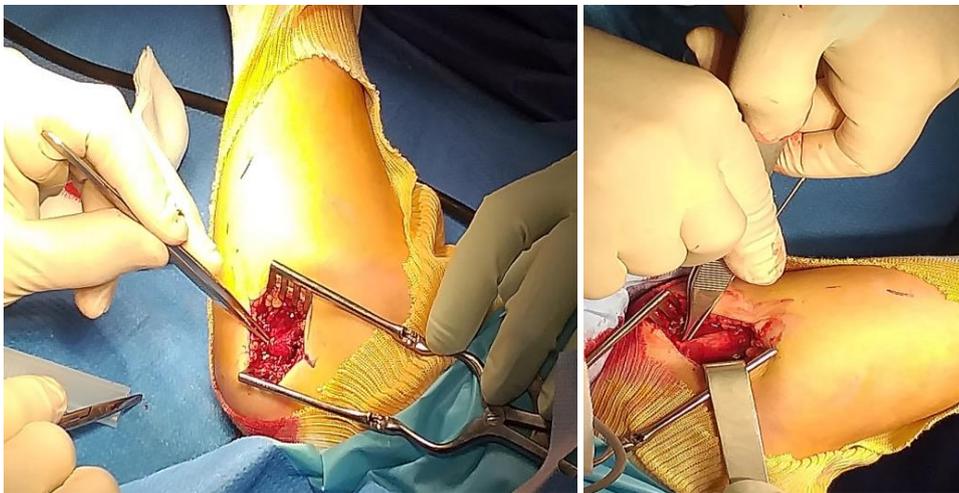


Figure 5: Open osteosynthesis of both elbows



Figure 6: Satisfactory scopic control of the right elbow

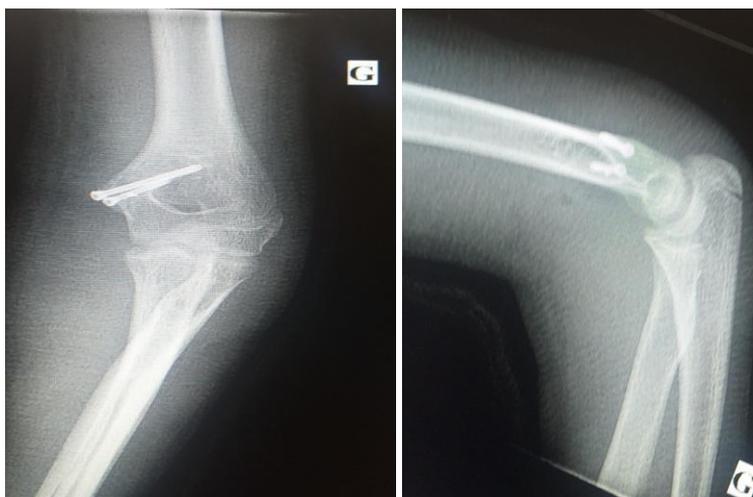


Figure 7: Satisfactory scopic control of the left elbow

DISCUSSION

Dislocation of the elbow is a rare lesion in children, isolated it represents 3% to 6% of elbow injuries, it affects children between the age of 10-15 years [1, 3], most often from male sex and remains rare months of 3 years, there are often detachments associated with this dislocation, it is most often the unilateral medial epicondyle which incarcerates generally intra-articularly, then the fracture of the radial head, olecranon and coronoid process [4], bilateral elbow dislocation associated with lateral epicondyle detachment remains an exceptional entity, no such case has been reported in the literature. This lesion remains complex from an anatomical point of view, given that the elbow joint had its different ossification nuclei that can be the subject of a diagnostic impasse outside of radiological interpretation [1] and can leave functional sequelae. In the event of a delay in treatment [1]. In our case, the standard X-ray made it possible to make the diagnosis in the shortest possible time. The general treatment of a dislocation is orthopedic consisting of a reduction under anesthesia and reassessment of the other associated fractures under scopic control Surgical reduction is essential with a pinning by two parallel pins of the right elbow and two parallel screws of the left elbow followed by contention by BABP cast[5, 6], removal is done every 3 weeks concomitant with early rehabilitation [5], removal of osteosynthesis materials is done around 6 weeks after consolidation and clinical and radiological monitoring remains mandatory to detect a probable complication.

CONCLUSION

Dislocation of the bilateral elbow associated with detachment of the lateral epicondyles remains an exceptional lesion in children and constitutes a complex injury to the elbow, therefore diagnostic and therapeutic management must be early and adequate to avoid possible subsequent complications secondary to the

development of malunion, or growth abnormalities due to damage to the growth cartilage.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

All authors participated in the development of this work. All authors have read and verified the final version of the manuscript.

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