

Bilateral traumatic clavicle fractures: are they ever rare?

Fractures bilatérales de la clavicule : Sont-elles si rares ?

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ABSTRACT

Fracture of the clavicle is one of the most common injuries encountered by orthopaedic surgeons. However bilateral clavicular fractures have been reported to be rare. We report a case of bilateral clavicle malunion. Fractures diagnosed on the initial examination have united with conservative means. Reasons that may explain why bilateral clavicle fractures are considered to be extremely rare are discussed.

RÉSUMÉ

Les fractures de la clavicule sont fréquentes dans la pratique orthopédique. Cependant les fractures bilatérales sont rares. Nous rapportons un cas de cal vicieux de fracture bilatérale de la clavicule. Le diagnostic des fractures a été fait dès l'examen initial et le traitement était orthopédique. Les causes de ces fractures considérées comme rares sont discutées.



I. INTRODUCTION

Isolated clavicular fractures are commonplace in clinical practice [1]. Bilateral clavicle fractures are regarded as an exceeding rare occurrence. Most of the information in the available literature is based on case reports [2]. We have had the unusual experience of encountering a case of united bilateral clavicle fractures in an adult patient. Both fractures were diagnosed upon the initial presentation and treated uneventfully by conservative means. This offers us an opportunity to report on this case not only to add to this combined injury pattern statistics, but mainly to outline the reasons making it unusual.

II. CASE REPORT

A 41-year-old man was evaluated in medical expertise for bilateral traumatic clavicle fractures. The fractures were the result of a traffic accident occurred five years before. The patient was struck by a car. The radiographs performed at the time of the accident were unavailable for review. According to the patient, they showed bilateral clavicle fractures. The patient had benefited successfully from a conservative treatment, namely a figure-of-eight bandage for forty-five days in the general hospital he was first seen. On examination, he had normal pain free active movements of both shoulders. Radiographs taken at our institution showed a good fusion of the fractures with minimal deformity (Figure 1).

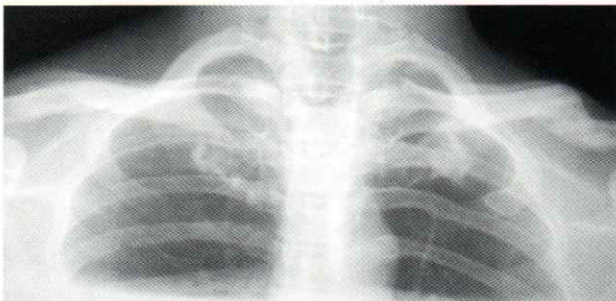


Fig. 1: Radiograph demonstrating both clavicular fractures united

III. DISCUSSION

Isolated fractures of the clavicle are frequent injuries as they constitute approximately 4% of all fractures in adults and about 35% of all fractures that occur in the shoulder region [1, 3]. However, bilateral clavicular fractures are infrequently encountered. NORDQVIST and PETERSON reported no bilateral cases in a series of 2035 clavicular fractures [4]. NOWAK et al [3] came across two cases of bilateral fractures in a series of 187 fractures during a 2-year-period. Since MARYA et al [5] had reported on five consecutive cases of bilateral clavicle fractures in an interval of three months, we concur with them that these lesions are underestimated injuries. To the best knowledge of these investigators their series is the largest reported series of this condition. Impressive feature brought out by their report was high energy trauma as the leading cause of fractures in all cases. On the other hand, fracture was missed on one side on initial examination in two cases. Reasons that could explain why bilateral clavicle frac-

tures are reported to be extremely rare might be the use of small films for clavicular roentgenograms and little attention directed to clavicular fractures in multiply injured patients [5].

In an attempt to overcome diagnosis pitfalls, large films including both clavicles should be a routine procedure in all patients with multiple injuries whether unilateral clavicular fracture is diagnosed initially or not [5]. Another problem is that of patients with normal initial radiograph of the clavicle after trauma and who subsequently had a fracture verified at re-presentation [6]. ALAO and GULY [6] recommended that if there is a strong clinical suspicion of a fracture of the clavicle further view, namely a 45° cephalic tilt view should be obtained. Those patients should be asked to re-attend in about 10 days, if symptoms persist, for repeat radiograph as is commonly practised for fractured scaphoid.

In conclusion, this case offers significant additional insight into the epidemiology of bilateral clavicle fractures. Careful physical examination and proper radiographs can make surgeons reconsider whether bilateral clavicle fractures are that rare.

IV. REFERENCES

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