



## Original article

Distal clavicle fractures in children<sup>☆</sup>

Pedro José Labronici<sup>a,\*</sup>, Ricardo Rodrigues da Silva Junior<sup>b</sup>,  
 Marcos Vinícius Viana Franco<sup>b</sup>, Gustavo José Labronici<sup>b</sup>,  
 Robinson Esteves Santos Pires<sup>c</sup>, José Sergio Franco<sup>d</sup>

<sup>a</sup> Universidade Federal Fluminense, Niterói, RJ, Brazil

<sup>b</sup> Serviço de Ortopedia e Traumatologia Prof. Dr. Donato D'Ângelo, Hospital Santa Teresa, Petrópolis, RJ, Brazil

<sup>c</sup> Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil

<sup>d</sup> Faculdade de Medicina, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil

## ARTICLE INFO

## Article history:

Received 19 January 2015

Accepted 23 February 2015

Available online 29 December 2015

## Keywords:

Child

Fractures bone

Clavicle

## ABSTRACT

**Objective:** To analyze fractures of the distal clavicle region in pediatric patients.

**Methods:** Ten patients between the ages of five to eleven years (mean of 7.3 years) were observed. Nine patients were treated conservatively and one surgically. All the fractures were classified using the Nenopoulos classification system.

**Results:** All the fractures consolidated without complications. Conservative treatment was used for nine patients, of whom three were in group IIIB, three IIB, two IIA and one IV. The only patient who was treated surgically was a female patient of eleven years of age with a group IV fracture.

**Conclusion:** The treatment indication for distal fractures of the clavicle in children should be based on the patient's age and the displacement of the fragments.

© 2015 Sociedade Brasileira de Ortopedia e Traumatologia. Published by Elsevier Editora Ltda. All rights reserved.

## Fratura da região distal da clavícula em crianças

## RESUMO

**Objetivo:** Analisar as fraturas da região distal da clavícula em pacientes pediátricos.

**Métodos:** Foram observados dez pacientes entre cinco a 11 anos com média de 7,3 anos. Nove pacientes foram tratados conservadoramente e um cirurgicamente. As fraturas foram classificadas segundo a classificação de Nenopoulos.

**Resultados:** Todas as fraturas consolidaram sem complicações. O tratamento conservador foi usado em nove pacientes, três do grupo IIIB; três IIB; dois IIA e um IV. O único paciente

## Palavras-chave:

Crianças

Fraturas ósseas

Clavícula

<sup>☆</sup> Work performed in the Serviço de Ortopedia e Traumatologia Prof. Dr. Donato D'Ângelo, Hospital Santa Teresa and Faculdade de Medicina de Petrópolis, Petrópolis, RJ, Brazil.

\* Corresponding author.

E-mail: [plabronici@globo.com](mailto:plabronici@globo.com) (P.J. Labronici).

<http://dx.doi.org/10.1016/j.rboe.2015.12.006>

2255-4971/© 2015 Sociedade Brasileira de Ortopedia e Traumatologia. Published by Elsevier Editora Ltda. All rights reserved.

tratado cirurgicamente foi uma paciente do gênero feminino de 11 anos com fratura do grupo IV.

**Conclusão:** A indicação do tratamento para as fraturas distais da clavícula em crianças deve ser baseada na idade do paciente e no desvio dos fragmentos.

© 2015 Sociedade Brasileira de Ortopedia e Traumatologia. Publicado por Elsevier Editora Ltda. Todos os direitos reservados.

## Introduction

Fractures of the clavicle, especially those of the middle third, are very common among patients with an immature skeleton. However, they are rare injuries in the distal region, where they account for only 10–20% of all fractures of the clavicle.<sup>1,2</sup>

There are few studies in the literature with long follow-ups on cases of these injuries.<sup>3,4</sup> Fractures of the distal third of the clavicle are generally caused by direct trauma on the shoulder, and approximately 85% result from injuries during sports or recreational activities.<sup>2</sup> Given that the center of ossification of the distal epiphysis of the clavicle appears after the age of 18 years and the medial fragment of the clavicle may become

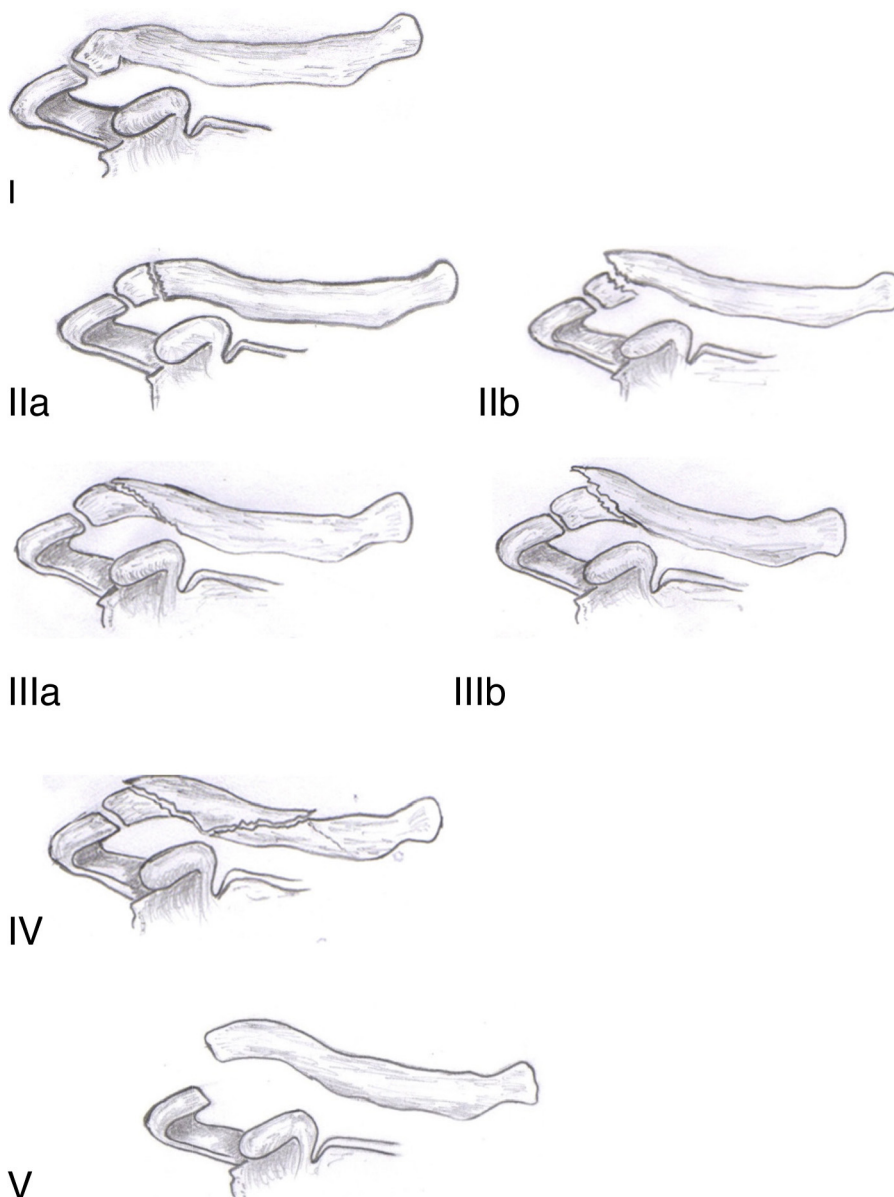


Fig. 1 – Classification scheme of Nenopoulos et al.<sup>5</sup>

Download English Version:

<https://daneshyari.com/en/article/2713431>

Download Persian Version:

<https://daneshyari.com/article/2713431>

[Daneshyari.com](https://daneshyari.com)