



## Rates of readmission and reoperation after operative management of midshaft clavicle fractures in adolescents

Mohamed Kamal Mesregah

**Specialty type:** Orthopedics

**Provenance and peer review:**

Invited article; Externally peer reviewed.

**Peer-review model:** Single blind

**Peer-review report's scientific quality classification**

Grade A (Excellent): 0  
Grade B (Very good): 0  
Grade C (Good): C, C  
Grade D (Fair): 0  
Grade E (Poor): 0

**P-Reviewer:** Buckley RE, Canada; Muthu S, India

**Received:** January 15, 2022

**Peer-review started:** January 15, 2022

**First decision:** February 21, 2022

**Revised:** February 21, 2022

**Accepted:** July 27, 2022

**Article in press:** July 27, 2022

**Published online:** August 18, 2022



**Mohamed Kamal Mesregah**, Department of Orthopaedic Surgery, Menoufia University Faculty of Medicine, Shebin El-Kom, Menoufia, Egypt

**Corresponding author:** Mohamed Kamal Mesregah, MD, Lecturer, Department of Orthopaedic Surgery, Menoufia University Faculty of Medicine, Yaseen Abd El-Ghaffar St, Shebin El-Kom, Menoufia, Egypt. [mohamed.mesregah@med.menofia.edu.eg](mailto:mohamed.mesregah@med.menofia.edu.eg)

### Abstract

The present letter to the editor is a commentary on the study titled "Rates of readmission and reoperation after operative management of midshaft clavicle fractures in adolescents". There is a debate over whether surgical treatment of clavicle shaft fractures improves clinical outcomes in adolescents. The readmission and reoperation rates following surgery should be identified.

**Key Words:** Readmission; Reoperation; Clavicle fractures; Operative fixation; ORIF; Adolescents

©The Author(s) 2022. Published by Baishideng Publishing Group Inc. All rights reserved.

**Core Tip:** Most mid-shaft clavicular fractures in adolescents have been typically treated nonoperatively with satisfactory outcomes. There is a major controversy over whether surgical treatment of clavicle shaft fractures in adolescents improves clinical outcomes in the same way it does in adults. There is a need to conduct multiple prospective randomized studies or large comparative database studies to better assess the operative management.

**Citation:** Mesregah MK. Rates of readmission and reoperation after operative management of midshaft clavicle fractures in adolescents. *World J Orthop* 2022; 13(8): 775-776

**URL:** <https://www.wjgnet.com/2218-5836/full/v13/i8/775.htm>

**DOI:** <https://dx.doi.org/10.5312/wjo.v13.i8.775>

### TO THE EDITOR

I read with great interest the retrospective study on the national rates of readmission

and reoperation after open reduction internal fixation (ORIF) of midshaft clavicle fractures in adolescents by Carrillo *et al*[1], published in your esteemed journal in December 2021 issue.

I agree with the authors that there is a need to identify the national readmission and reoperation rates following ORIF of midshaft clavicle fractures in adolescents. Most clavicular fractures in adolescents have been typically treated nonoperatively, especially those affecting the mid-shaft of the clavicle[2,3]. In adolescents, there remains a major controversy over whether surgical treatment of clavicle shaft fractures improves the clinical outcomes in the same way it does in adults[4].

For the purpose of Carrillo *et al*[1] study, the authors utilized the Healthcare Cost and Utilization Project State Inpatient Database (SID) for the years 2005-2012 in Florida and 2005-2009 in California. This database includes inpatient discharge records from community hospitals in those states.

For identification of patient cohort, the authors used two codes. The first code is CPT 23515 code, which by definition refers to (Open treatment of clavicular fracture, includes internal fixation when performed). However, the other code used by the authors is ICD-9 CM 79.39 code, which refers to (open reduction of fracture with internal fixation, other specified bone), which means that this code is not specific at all to the clavicular fractures. Therefore, I am afraid the authors included in the study adolescent patients with fractures in other body bones, other than clavicular fractures.

Moreover, the authors identified only 334 clavicle fractures in adolescents managed operatively. This number is considered low to determine readmission and reoperation rates in large database studies such as SID. The authors should at least have used SID for years up to 2020 in both states.

The authors also reported that 11 (3.3%) patients were readmitted within 90 d of surgery. However, this low rate is not clinically important as those 11 patients may have been admitted for other reasons unrelated to the index surgery.

Nonoperative care is the successful historical treatment and the current safest treatment for midshaft clavicular fractures in adolescents. Operative care is overused in adolescents for clavicle fractures. To better assess the operative management, there is a need to conduct multiple prospective randomized studies or large comparative database studies.

## FOOTNOTES

**Author contributions:** Mesregah MK revised the literature, collected data, wrote and revised the manuscript.

**Conflict-of-interest statement:** All the authors declare that they have no conflict of interest.

**Open-Access:** This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <https://creativecommons.org/licenses/by-nc/4.0/>

**Country/Territory of origin:** Egypt

**ORCID number:** Mohamed Kamal Mesregah 0000-0002-8047-9159.

**S-Editor:** Liu JH

**L-Editor:** A

**P-Editor:** Liu JH

## REFERENCES

- 1 Carrillo LA, Wu HH, Chopra A, Callahan M, Katyal T, Swarup I. Rates of readmission and reoperation after operative management of midshaft clavicle fractures in adolescents. *World J Orthop* 2021; **12**: 1001-1007 [PMID: 35036342 DOI: 10.5312/wjo.v12.i12.1001]
- 2 Gausden EB, Fabricant PD. Management of Clavicle Fractures in Adolescents: A Critical Analysis Review. *JBJS Rev* 2018; **6**: e4 [PMID: 30204645 DOI: 10.2106/JBJS.RVW.17.00194]
- 3 Lenza M, Faloppa F. Conservative interventions for treating middle third clavicle fractures in adolescents and adults. *Cochrane Database Syst Rev* 2016; **12**: CD007121 [PMID: 27977849 DOI: 10.1002/14651858.CD007121.pub4]
- 4 Yang S, Andras L. Clavicle Shaft Fractures in Adolescents. *Orthop Clin North Am* 2017; **48**: 47-58 [PMID: 27886682 DOI: 10.1016/j.jocl.2016.08.007]



Published by **Baishideng Publishing Group Inc**  
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA

**Telephone:** +1-925-3991568

**E-mail:** [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)

**Help Desk:** <https://www.f6publishing.com/helpdesk>

<https://www.wjgnet.com>

