J Med Sci 2023;43 (4):196 DOI: 10.4103/jmedsci.jmedsci 22 23

## LETTER TO EDITOR



# Surgical and Nonsurgical Treatments for Proximal Femur Fractures: A Narrative Review

Dear Editor.

We read the article "Surgical and nonsurgical treatments for proximal femur fractures: A narrative review" by Frydoni and Esmaeilnejad-Ganji, with a lot of interest. We commend the authors' efforts. We wrote this letter to present some updated references with higher levels of evidence.

#### FOR FEMORAL NECK FRACTURES

To our knowledge, a study which published in the Lancet has provided a prospective randomized evidence. According to the study, there were no differences in revision surgery rates within 24 months between dynamic hip screws (DHS) and multiple cancellous screws (MCS); MCS had higher revision surgery rates for implant removal, and DHS had higher rates of conversion to total hip arthroplasty and osteonecrosis.<sup>2</sup>

Femoral neck system (FNS), MCS, and DHS are effective for femoral neck fractures. Xu *et al.*<sup>3</sup> revealed FNS shortened the operation time by decreasing the intraoperative fluoroscopy times. FNS has the advantages of being a simple operation, with early weight bearing which compared with MCS. Compared to DHS, the main advantage of FNS is minimal invasive surgery.

#### FOR INTERTROCHANTERIC FRACTURES

For standard obliquity fracture patterns with posteromedial comminution, a randomized, controlled trial comparing DHS and cephalomedullary nails revealed no differences in functional outcomes. Less femoral neck shortening with cephalomedullary nails group, at 12 months after operation.<sup>4</sup>

Failure rates remain low with either treatment (DHS and cephalomedullary nails), and later conversion to hip joint arthroplasty does not appear to favor one implant over the other. The study results had no difference between these implants including surgical time, hospital length of stay, Trendelenburg gait, complication rates, or 5-year survivorship of the joint arthroplasty.<sup>5</sup>

#### Data availability statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

### Financial support and sponsorship

Nil.

## **Conflicts of interest**

There are no conflicts of interest.

Wei-Chin Chen<sup>1</sup>, Zhi-Hong Zheng<sup>1,2</sup>

<sup>1</sup>Department of Orthopedic Surgery, Tri-Service General Hospital, National Defense Medical Center, Taipei, <sup>2</sup>Department of Orthopedic Surgery, Hualien Armed Forces General Hospital, Hualien, Taiwan

Corresponding Author: Dr. Zhi-Hong Zheng,
Department of Orthopedic Surgery, Tri-Service General
Hospital, National Defense Medical Center, No. 325,
Sec. 2, Chenggong Rd., Neihu Dist., Taipei 114, Taiwan.
Department of Orthopedic Surgery, Hualien Armed Forces
General Hospital, No. 163, Jiali Rd., Xincheng Township,
Hualien 971, Taiwan.
E-mail: rara540@gmail.com

22. Davisad: Fahmam: 22, 2022.

Received: January 17, 2023; Revised: February 23, 2023; Accepted: March 14, 2023; Published: April 26, 2023

#### REFERENCES

- 1. Frydoni MB, Esmaeilnejad-Ganji SM. Surgical and nonsurgical treatments for proximal femur fractures: A narrative review. J Med Sci 2021;41:53-7.
- 2. Fixation using Alternative Implants for the Treatment of Hip fractures (FAITH) Investigators. Fracture fixation in the operative management of hip fractures (FAITH): An international, multicentre, randomised controlled trial. Lancet 2017;389:1519-27.
- 3. Xu X, Fan J, Zhou F, Lv Y, Tian Y, Ji H, *et al.* Comparison of femoral neck system to multiple cancellous screws and dynamic hip screws in the treatment of femoral neck fractures. Injury 2022;S0020-1383(22)00231-5. doi:10.1016/j.injury.2022.03.041. [Published online ahead of print, 2022 Mar 25].
- Reindl R, Harvey EJ, Berry GK, Rahme E, Canadian Orthopaedic Trauma Society (COTS). Intramedullary versus extramedullary fixation for unstable intertrochanteric fractures: A prospective randomized controlled trial. J Bone Joint Surg Am 2015;97:1905-12.
- 5. Yuan BJ, Abdel MP, Cross WW, Berry DJ. Hip arthroplasty after surgical treatment of intertrochanteric hip fractures. J Arthroplasty 2017;32:3438-44.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

**How to cite this article:** Chen WC, Zheng ZH. Surgical and nonsurgical treatments for proximal femur fractures: A narrative review. J Med Sci 2023;43:196.