



Clinical outcomes in surgically indicated scapular fracture patients managed with conservative means: a case series

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Comment on: Chen X, Deng YD, Qiu XS, Chen YX, Zhang ZT. Analysis of the curative effect and prognostic factors in patients with scapular fracture with surgical indications after conservative treatment: a case series and clinical outcomes. *Quant Imaging Med Surg* 2023;13:5130-40.

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We were interested in reading the original article “Analysis of the curative effect and prognostic factors in patients with scapular fracture with surgical indications after conservative treatment: a case series and clinical outcomes” by Chen *et al.* (1), published in the esteemed journal *Quantitative Imaging in Medicine and Surgery* in Vol 13, No 8 in August 2023. The study aimed to determine the influencing factors that affect the prognosis of scapular fracture with operative indication treated conservatively. We have certain reservations regarding the study.

First, the authors in their study included imaging data for the classification and treatment. One needs better understanding of the above statement. The study fails to mention whether every patient underwent computed tomography (CT) or combined CT and X-ray imaging or X-ray imaging only. Furthermore, surgical indication for inclusion criteria were (I) intra-articular fracture displacement ≥ 4 mm; (II) joint involvement $>20\%$ to 25% ; (III) glenopolar angle (GPA) $\leq 22^\circ$; (IV) fracture angulation $\geq 45^\circ$; (V) fracture displacement of the lateral margin >20 mm, or >15 mm with angulation $>30^\circ$; and (VI) two or more injuries of superior shoulder suspensory complex (SSSC) (1). The authors have selected a cut-off value for

each variable. The measurement or methods have not been mentioned. Intra and interobserver coefficient would have been measured and noted as the crux of the study involves conservative management of surgically indicated patients.

Second, one of the surgical indications and an inclusion criterion was ≥ 2 injuries of the SSSC. SSSC consists of the bony processes (glenoid process, coracoid process and acromial process), the distal part of clavicle bone, the coracoclavicular ligaments and the acromioclavicular joint (2). Authors included nine subjects with SSSC injury (six subjects having two SSSC injuries and three subjects having three SSSC injuries). There is an ambiguity in the above inclusion. Authors failed to mention the individual injuries among the SSSC. An injury to the glenoid or any of the articular surface may affect the outcome differently in comparison to non-articular part. Moreover, bias can be created by including all the injuries in an umbrella term

Third, authors included patients with a large range bracket [27–81]. One may not get same results in a patient with age 27 in comparison to patient aged 81. Moreover, older patients have higher chances of rotator cuff injury (3). The study failed to exclude these and failed to mention whether these patients had concomitant rotator cuff

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injuries.

Fourth, authors mention that associated clavicular fracture in 15 patients and proximal humerus fracture in 1 patient was fixed with plate. In this subgroup of patients, loss of range of movement for shoulder joint may be due to injury to other structures like acromioclavicular ligament, coracoacromial ligament or coracoclavicular ligament or to one of the rotator cuff tendon. It would create a bias to include such patients in the study as surgical dissection near or around shoulder can affect the shoulder function (4,5).

Fifth, the authors don't mention about the severity and management of other associated injuries like rib fracture, pulmonary contusion, hemopneumothorax, closed craniocerebral injury, vertebral fracture, pelvic fracture or femoral fracture which would have restricted the patient to bed and adversely affected the shoulder outcome.

Sixth, the authors mention that scapular fractures were managed conservatively in patients having sustained multiple systemic injuries and were low demand for shoulder function but fails to mention about the criteria for putting these patients as 'low demand for shoulder' other than mentioning that their work didn't require to lift their hand over top of head.

Seventh, the authors mention that "all scapular fractures healed clinically and the recovery satisfaction of patients reached 100%." They also mention that two patients could not return to their pre-injury work. Were the patients still satisfied without resuming their pre-injury work?

To conclude, the study would have been better if the above points would have been included in the study.

Appendix 1: Response to "Clinical outcomes in surgically indicated scapular fracture patients managed with conservative means: a case series".

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Footnote

Conflicts of Interest: All authors have completed the ICMJE

uniform disclosure form (available at <https://qims.amegroups.com/article/view/10.21037/qims-23-1408/coif>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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References

1. Chen X, Deng YD, Qiu XS, Chen YX, Zhang ZT. Analysis of the curative effect and prognostic factors in patients with scapular fracture with surgical indications after conservative treatment: a case series and clinical outcomes. *Quant Imaging Med Surg* 2023;13:5130-40.
2. Goss TP. Double Disruptions of the Superior Shoulder Suspensory Complex. *J Orthop Trauma* 1993;7:99-106.
3. Worland RL, Lee D, Orozco CG, SozaRex F, Keenan J. Correlation of age, acromial morphology, and rotator cuff tear pathology diagnosed by ultrasound in asymptomatic patients. *J South Orthop Assoc* 2003;12:23-6.
4. Eickmeyer SM, Walczak CK, Myers KB, Lindstrom DR, Layde P, Campbell BH. Quality of life, shoulder range of motion, and spinal accessory nerve status in 5-year survivors of head and neck cancer. *PM R* 2014;6:1073-80.
5. Min J, Kim JY, Yeon S, Ryu J, Min JJ, Park S, et al. Change in Shoulder Function in the Early Recovery Phase after Breast Cancer Surgery: A Prospective Observational Study. *J Clin Med* 2021;10:3416.

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