

Comment on O'Shaughnessy et al: 'Management of paediatric humeral shaft fractures and associated nerve palsy'

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Sirs,

We read with interest the recent publication by M. A. O'Shaughnessy et al.¹ We would like to congratulate the authors for the excellent and very well-illustrated article. As there is very sparse literature on paediatric humeral shaft fractures and associated nerve palsies, this article invoked curiosity about the management of the same. We are sure that this article will add significantly to the understanding of nerve injuries associated with paediatric humeral shaft fractures. It has also given us the perspective that most humeral shaft fractures can be managed conservatively, avoiding unnecessary surgeries in most of the cases in the paediatric age group. While trying to understand the research we could not get clarity regarding the following points.

The incidence of humeral shaft fracture will vary according to the age group in paediatric patients. In their study describing the pattern and treatment of paediatric fractures, Cheng et al.² reported the overall percentage as 2.8% and illustrated age-wise distribution. For 0 years to three years it was 14% and for 12 years to 16 years it was 37.4% with respect to humeral shaft fractures. This indicates that incidence is more in the adolescent age group. Moreover, there is a bimodal distribution with one group less than three years and the other older than 12 years.³ In this study the authors have included the paediatric patients from 0 years to 17 years as a single group resulting in huge heterogeneity and hence the means are skewed. Further, in infants and pre-school children the fracture heals well with immobilization where as in adolescents fracture treatment is almost like an adult except that the closing physis should be taken care of. The heal-

ing rates are not comparable in infants and adolescents as there is tremendous remodelling potential in the 0 years to three years group.

The treatment protocols have also changed over past 20 years with emerging newer modalities for better fixation and stabilization. The operative tendency has been increasing whereas the nonoperative option is a decreasing trend.⁴ Expectations of perfect results, avoiding plaster casting and repeated clinic visits and possible litigation may explain the reason behind more inclination towards surgical intervention.

In Table 4 where a comparison was done between operative and nonoperative groups, the mean age for surgical stabilization was mentioned as 13 years (sd 5) while narrating the same in the text it was referred to as 16 years, resulting in confusion.

Out of 80 children included in the study, only five had some associated nerve palsy. We feel that this is a very small number to comment on the incidence and management of the same. Both the groups differ in terms of age, injury severity and coexisting injuries and radiographic parameters were also missing.

In summary, the work as presented is excellent and we are not questioning the reliability of the current study and its data. But we welcome further discussion on this topic on the points mentioned above.

Yours faithfully,
The Authors

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COMPLIANCE WITH ETHICAL STANDARDS

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ICMJE CONFLICT OF INTEREST STATEMENT

No conflict of interest.

REFERENCES

1. **O'Shaughnessy MA, Parry JA, Liu H, Stans AA, Larson AN, Milbrandt TA.** Management of paediatric humeral shaft fractures and associated nerve palsy. *J Child Orthop.* 2019;13:508–515.
2. **Cheng JCY, Ng BKW, Ying SY, Lam PKW.** A 10-year study of the changes in the pattern and treatment of 6,493 fractures. *J Pediatr Orthop.* 1999;19:344–350.
3. **Caviglia H, Garrido CP, Palazzi FF, Meana NV.** Pediatric fractures of the humerus. *Clin Orthop Relat Res.* 2005;432:49–56.
4. **Schoch BS, Padegimas EM, Maltenfort M, Krieg J, Namdari S.** Humeral shaft fractures: national trends in management. *J Orthop Traumatol.* 2017;18:259–263.

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