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Letter to Editor regrading "Predictors for operative treatment in pediatric proximal third both-bone diaphyseal forearm fractures in children include age and translation, but not initial angulation"

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Proximal one-third fractures of the forearm in children are less researched as compared to distal fractures and have been suggested to have more stricter reduction parameters as compared to the distal ones for optimal function.[1] This is because of the close proximity of the radius and ulna proximally during pronation as well as the greater soft-tissue mass proximally due to which they have a high probability of loss motion and loss of reduction when managed conservatively. In this regard, the study by Williams et al.[2] on pediatric distal forearm fractures was analyzed with interest. We congratulate the authors since this is one of the first studies to have focused on translation of the radius rather than its angulation. The study aimed to identify factors that increase the chances of a surgical intervention in proximal third fractures of radius and ulna. It concluded that age above 10 years and 100% initial translation of the radius increased the odds of surgical intervention.

The study does not quantify the parameters of an acceptable reduction, and the operative indications were created on a patient-to-patient basis by the attending surgeons. The study states that there is no consensus on operative indications for proximal third forearm fractures in children. For age less than 8 years, an angulation up to 10° and displacement up to 100% are acceptable, whereas for age more than 8 years, anatomic reduction with internal fixation was recommended by Price.[1] Recently, Pace advocated a less-stringent approach, accepting up to 15° of angulation for girls less than 8 years and boys less than 10 years and up to 10° of angulation for older children.[3] Incorporating either of these guidelines into this study would have provided surgeons world over with more robust results.

The study considered translation only as a categorical variable (less than 50%, 50%–100%, and more than 100%). We believe that consideration of translation also as a continuous variable would have provided more pin-point results and would have helped develop a guideline backed by the huge sample size of 276 patients. Since translation was one of the factors considered in the multivariate analysis, its consideration as a continuous variable would have been advisable.

With proximal third forearm fractures in children comprising less than a quarter of all forearm fractures, they pose unique challenges in its optimal treatment. A prospective study incorporating the findings of this study (increased odds of surgery for age more than 10 years and 100% translation of the radius) into two randomized groups of non-operative and operative treatment would lead us to have more valid results.

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