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Letter to the Editor

Calcaneal skeletal traction versus elastic intramedullary nailing of displaced tibial shaft fractures in children- letter to editor


Dear Editor,

We read the article “Calcaneal skeletal traction versus elastic intramedullary nailing of displaced tibial shaft fractures in children” by Zeng et al [1], with a lot of interest. We commend the authors efforts in describing a relatively simple method of stabilizing paediatric tibial shaft fractures. However, we had a few concerns regarding the study findings and believe that replies by the authors can help dispel them.

First, there is a discrepancy between values expressed for the duration of casting in patients undergoing elastic intramedullary nailing (EIN). In the text, the duration mentioned is 31.7 ± 19 days. However, the same value in table of the study [1] is depicted as 57.8 ± 25.5 days. This assumes significance as one of the benefits of calcaneal skeletal traction (CST), as advocated by the authors, is the significantly shorter duration of immobilization and casting (43.1 ± 20.7 days).

Secondly, the average cost of hospitalization and treatment was significantly higher in the EIN group. However, the duration of hospital stay is much higher in the CST group. Was a cost-effective analysis taking into consideration the number of days away from work (for the parents/guardians) done? Previous literature has shown that paediatric long bone fractures managed by EIN incur less financial burden on the patient vis-à-vis traction alone/ traction plus casting [2,3].

Third, while skeletal traction may suffice as a definitive treatment modality for relatively stable diaphyseal injuries, their utility in displaced, rotationally unstable tibial shaft fractures is still doubtful. In such cases, EIN is preferred instead. This is because not only does it provide a three-point fixation to the fracture but also, the elasticity of the nail enables micro-motion at the fracture site which in turn helps in callus formation [4,5].

Paediatric tibial diaphyseal fractures are one of the most common childhood injuries [5]. While EIN is still the favoured method of surgical fixation, well designed randomized control trials with sufficient patient numbers are needed before a statement of the most optimal surgical procedure can be put forward.

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Declaration of Competing Interest

None.

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