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Clarifying the indications for nonoperative treatment of phalangeal neck fractures

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To the Editor:

We greatly enjoyed Bohn and Wise’s article. However, in their section on Pediatric Fractures, we take issue with what we regard as a mischaracterization of the literature in their statement: “If malrotation is not present, extra-articular phalangeal neck fractures in children remodel and have good functional outcomes without a surgical procedure.” This oversimplifies indications for nonoperative treatment and merits clarification.

Bohn and Wise cite two studies to support their statement. The first, by Puckett et al, examined outcomes of 8 children with displaced phalangeal neck fractures who presented late with healed or healing malunions. All patients were observed and completely remodeled their sagittal plane deformities. These results should be cautiously interpreted given the small sample size. The authors themselves state that they treat all acute displaced phalangeal neck fractures surgically and offer percutaneous osteoclasis to those with nascent malunions to allow earlier motion, as described by Waters et al. Healed malunions can be observed and may remodel, but for those that do not, Puckett et al recommend subcondylar fossa reconstruction as described by Simmons and Peters.

The second study, by Tan et al, examined radiographic outcomes of 35 children with displaced phalangeal neck fractures treated non-operatively. At a mean of 4.3 months, the fractures did not displace further suggesting that these fractures, often regarded as unstable, may be stable enough to treat without pinning. However, the authors themselves caution that these findings should not by extrapolated to guide treatment of all displaced fractures as they only recommend nonoperative treatment for phalangeal neck fractures with <30° angulation, <25% translation, and no malrotation.

We believe Bohn and Wise’s statement mischaracterizes the evidence to guide treatment of phalangeal neck fractures. While some minimally displaced fractures may be stable enough to treat nonoperatively, surgery remains a mainstay of treatment for acute, displaced fractures. Although some malunions may remodel completely, fractures less than two
weeks old that are significantly displaced or angulated merit consideration of surgical treatment.

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References


Conflict of Interest: None Declared