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Re: Özçelik B, Kabakas F, Mersa B. Treatment of nonunion of the distal phalanx with olecranon bone graft. *J Hand Surg Eur.* 2009, 34: 638 –42

S. Brunetti, B. Özçelik, G. Garavaglia, C. Fusetti, F. Kabakas and B. Mersa
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Letters about Published Papers

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Letters are sent to the authors of the original papers for their comments but will be published without a reply if the authors do not wish to make a comment. The Editor reserves the right to make editorial and literary changes to letters and to reject those deemed to be of insufficient interest to readers.

Re: Özçelik B, Kabakas F, Mersa B. Treatment of nonunion of the distal phalanx with olecranon bone graft. *J Hand Surg Eur.* 2009, 34: 638–42

Dear Sir,

We read this paper with interest and thank the authors for reporting their experience in the surgical treatment of nonunion of fractures of the distal phalanx. Özçelik et al. recommend surgical treatment with bone graft harvested from the olecranon and stabilization of the nonunion with a Kirschner wire. We too, found that nonunion of these fractures are mostly atrophic and agree that surgery is needed, but only for symptomatic nonunion and possibly within the first three months after trauma.

Our preferred treatment of atrophic nonunions is cancellous bone grafting after excision of the fibrous tissue (Voche et al., 1995) but we prefer obtaining the graft from the distal radius Lister tubercle as it does not create esthetical problems because the 3 cm long scar is barely visible, moreover, in men, it will be covered by hair. This technique avoids a scar on a pressure area. As reported by Itoh et al. (1985), we find that stabilization with Kirschner wires is sufficient. We believe that a central longitudinal exposure of the proximal part of the distal phalanx is a safer exposure (Itoh et al., 1985) than the lateral one proposed by

Özçelik et al., allows an easier realignment of the fragments, and avoids loss of sensation especially if the incision does not extend into the distal part, where the majority of mechanoreceptors are located (Johansson et al., 1979). In our experience union is usually achieved about 8 weeks after the surgical procedure.

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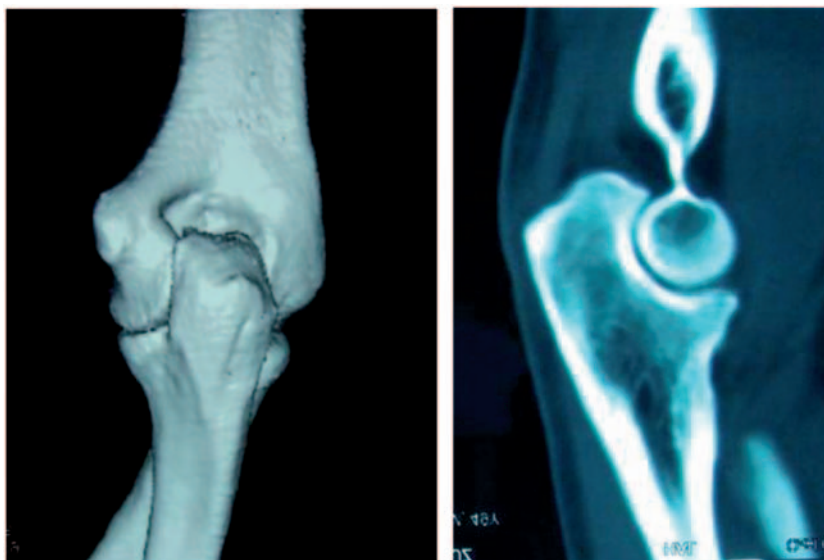


Figure 1. Almost complete reossification of the olecranon donor site 6 months after bone graft harvest.

Reply

Dear Sir,

Re: Özçelik B, Kabakas F, Mersa B. Treatment of nonunion of the distal phalanx with olecranon bone graft. J Hand Surg Eur. 2009, 34: 638–42

We appreciate the comments of Brunetti et al. in terms of stressing the importance of the treatment of symptomatic nonunions of the distal phalanx.

We think that compared to the olecranon, the Lister tubercle, being at the dorsal wrist, will result in a more visible scar tissue.

Both structured cancellous bone graft and bone chips can be harvested from the olecranon; however, we do not have the experience to say whether the Lister tubercle will permit harvesting structured cancellous bone graft. The structured bone grafts allow en bloc reconstruction of any phalangeal bone defect.

By way of technique, we open a cortical window at the olecranon and close this cortical window after bone graft harvesting so no cortical defect occurs at the donor site. In another study we will present the late results of olecranon donor site. In the CT scans taken after 6 months we see that complete reossification of the donor site occurred (Figure 1).

We do not have the experience to say whether or not bone graft harvesting from the Lister tubercle will cause damage to the extensor retinaculum or will result in tendon adhesions. Olecranon bone graft donor site has no such risks.

The reasons that we prefer the lateral approach instead of a midline incision of the finger pulp are as follows. The flexor or extensor tendon insertions to the distal phalanx are avoided. The transverse palmar arc and central artery, formed by union of ulnar and radial digital arteries, are at the basis of distal phalanx. These vessels may be injured by a midline incision that will compromise the vascularity for the healing bone and pulp. The anterior–posterior displacements of the bone fragments of nonunion are more easily handled by a lateral approach.

We agree with Brunetti et al. that symptomatic distal phalanx nonunions must be treated.

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Re: Puna R, Poon P. The anatomy of the dorsal cutaneous branch of the ulnar nerve. J Hand Surg Eur. 2010, 35: 583–5

Dear Sir,

I have read with interest the article by Puna and Poon (2010) in which the authors suggested that the