Author's response to reviews

Title: Proximal metatarsal osteotomy for hallux valgus: an audit of radiologic outcome after single screw fixation and full postoperative weightbearing

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Response to reviewers’ comments:

Thank you very much for the points and suggestions from the reviewers. We appreciate the time and efforts you spent on the review and hope this is now acceptable for publication.

1. Mark Gilheany

Minor Essential Revision

Line 99 – Grammar improved if word "as" is inserted.

Grammar was improved ("as" was inserted)

Consider using a diagram to demonstrate technique utilised more clearly as the operative photographs do not adequately explain the procedure.

Two illustrations (Fig. 1b and 2a) have been added which demonstrate the surgical technique more clearly.

Discretionary revisions

The authors may wish to discuss the merits of early ambulation in terms if reduced risk for DVT etc as part of discussion.

Lines 218/219 added: “Early ambulation with full weight bearing reduces the risk of deep vein thrombosis and prevents muscular atrophy.”

2. Tim Kilmartin:

Specific comments

Xrays were reviewed at 2 days and 6 weeks. Xrays taken at 2 days post op are
of limited value though they may indicate if there is a catastrophic loss of fixation. The patient is very unlikely to be fully weightbearing not least because they have a thick bandage around their foot. Angles or measurements taken from such an early xray cannot be relied upon. Xrays taken at 6 weeks provided limited evidence of the longer term correction of the hallux valgus deformity. A minimum of 2 year follow up is usually required for publication.

We partially agree to the reviewer. X-rays after two days are usually taken as postoperative control. Measurement of the intermetatarsal or hallux valgus angle at that time does not provide information about the position of the toe after 6 weeks or 2 years. But in our experience and due to the literature, the majority of loss of correction (hallux valgus angle, intermetatarsal angle, metatarsal length) occurs within the first 6 weeks after surgery during consolidation of the osteotomy (1). Once the bone has healed, loss of correction usually occurs due to inadequate soft tissue handling, which has not been evaluated in this study.

The xray figure shows a hallux varus deformity post op. There is also evidence of a concomitant procedure to the second toe but such additional procedures are not described in the methodology. First metatarsal length also appears to be much reduced in this xray.

For more clarity, the x-rays which showed a concomitant procedure have been replaced by x-rays of a patient with hallux valgus correction only. Hallux varus and first metatarsal shortening is not present.

Literature

Sincerely Yours,

F. Mittag et al.