Comment on Xu et al.: A retrospective study of posterior malleolus fractures

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Dear Sir,

This retrospective study regarding the factors affecting the surgical outcome of posterior malleolus fractures by Xu et al. [1] has really interested us. It provides a commendable and exhaustive analysis of all the possible factors which might have a say in the outcome of these injuries. However, the article does not provide guidance on whether fractures of the posterior malleolus less than 25 % in size should be fixed or not since the results have been depicted to be equivocal in both the scenarios.

However we would like to share a technical trick which in our opinion guides the fixation of a posterior malleolus fragment if smaller in size. After fixation of medial and lateral malleoli, we routinely perform tests to evaluate the stability of the ankle. Tests evaluating the inferior tibiofibular syndesmotic injury as well the antero-posterior instability of the tibia-talar articulation are performed and the joint viewed fluoroscopically. The latter is the guide to treatment of such injuries in our view, particularly if the fragment size is smaller than 25 % of the articular surface and does not ‘merit’ fixation on conventional grounds [2, 3].

If the intraoperative fluoroscopic images demonstrate instability while performing the anterior and posterior drawer tests, it is advisable to fix the posterior malleolus fragment even if the fragment is too small. This is because the residual translational instability has the potential to cause arthritis even in the absence of articular surface unevenness. Presented are the images of a 23-year-old male demonstrating a positive drawer test with a

Fig. 1 Intraoperative fluoroscopic lateral views of the ankle showing marked instability upon performing the ankle drawer test

Fig. 2 After fixation of the small posterior malleolus fragment showing distinctly improved stability

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tiny posterior malleolus fragment (Fig. 1). The stability improved remarkably after fixation of the fragment (Fig. 2).

We suggest this step should be incorporated consistently for decision making in posterior malleolus fractures having a smaller size of <25 % for achieving a better outcome of such injuries.

Conflict of interest The authors declare that they have no conflict of interest.

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