bleeding in solid organs and the kinetics of blood coagulation reactions. Some trauma patients probably receive transfusions when then they are not required, for example, due to collapsed systolic blood pressure in a patient with spinal shock or tachycardia in an acute painful context. [2] Regarding blunt and penetrating trauma, it would be interesting to know the authors' precise number of over-transfused patients.

Conflicts of interest

None of the author of this manuscript have any conflicts of interest.

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References

[1] Rijnhout TWH, et al. Is prehospital blood transfusion effective and safe in haemorrhagic trauma patients? A systematic review and meta-analysis. Injury 2019;50:1017–27.
[2] Ruiz IA, Squair JW, Phillips AA, et al. Incidence and natural progression of neurogenic shock after traumatic spinal cord injury. J Neurotrauma 2018;35:461–6.

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Letter to the Editor

Letter to the editor Re: The use of dorsal distraction plating for severely comminuted distal radius fractures: A review and comparison to volar plate fixation by R. Perlusa, J. Doyona and P. Henryb

I read the work from Toronto, Canada with interest. Dorsal distraction plating is a technique that routinely forms part of my management of complex intra-articular fractures of the distal radius. Anecdotally I find it to be useful for those injuries where standard volar or dorsal locking plate technology would not permit adequate hold of the fracture fragments. I agree with the authors that although external fixation is a viable technique for these injuries, the complication rate – particularly given the necessity for a fixation period of around three months – is excessively high. Complex regional pain syndrome, finger stiffness and superficial radial nerve irritation are all extremely difficult clinical problems to treat.

The paper gives a non-systematic review of the literature to date, demonstrating favourable outcomes with regards to range of movement and radiological parameters. However I have a few questions concerning the data presented. Table 1 and the manuscript text both suggest that eight studies were included in the review, including two authored by Hanel et al. [1,2] in 2006 and 2010. However the latter of these studies [2] does not appear to have been included in table 2. This omission of the largest series of these injuries makes interpretation of the demographics of this overall cohort difficult. This is particularly true when the complication rate is discussed using data from the 2010 paper. The total number of patients in whom results are being reported should be clearly stated in the manuscript.

In the results section no mention is made of the requirement to remove dorsal distraction plates following fracture union. Presumably the included studies all stated this in their methodology describing surgical technique. This should be clearly stated to avoid confusion for readers who may not be familiar with this technique.

The results section includes radiographic parameters and describes the radial inclination measured in millimetres (Table 4). Radial inclination is usually measured in degrees, with radial height measured in millimetres. Can you authors clarify which parameter is being reported and the unit of measurement?

The discussion is comprehensive but compares differing fracture patterns. Whilst I accept that Hanel et al [2] and Ruch et al [3] both used dorsal distraction plating for AO type A fractures, this seems an extension of the sensible indication of this technique. It is of note that all 3 papers share an author [1–3]. Spanning the wrist joint should not be undertaken lightly. If the fracture pattern permits fixation without spanning, as in a severely comminuted metaphyseal fracture with no intra-articular component, this can usually be safely performed with standard volar or dorsal locking plates. This would usually negate the need for a second surgical procedure and allow earlier range of movement, likely resulting in less wrist stiffness. However I accept this is not strongly supported by published evidence. Personally I do not feel that the AO type A fractures are an indication for this technique and I would be interested in the author's experience of treating these AO type A injuries.

Disclosure

The authors have no conflicts of interest to disclose concerning this study.

References

[1] Hanel DP, Lu TS, Weil WM. Bridge plating of distal radius fractures: the Harborview method. Clin Orthop Relat Res 2006;445:91–9.
[2] Hanel DP, Ruhlman SD, Katolik LI, Allan CH. Complications associated with distraction plate fixation of wrist fractures. Hand Clin 2010;26(2):237–43.
[3] Ruch DS, Ginn TA, Yang CC, Smith BP, Rushing J, Hanel DP. Use of a distraction plate for distal radius fractures with metaphyseal and diaphyseal comminution. J Bone Joint Surg Am 2005;87(5):945–54.

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