Comment on Changulani et al. “Comparison of the use of the humerus intramedullary nail and dynamic compression plate for the management of diaphyseal fractures of the humerus. A randomised controlled study”

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Dear Editor,

We read with great interest the article by Changulani et al. [3].

There is still a wide debate on whether nailing or plating is the preferred method of fixation for humeral fractures treated by surgery [1]. However, we have a few comments to make:

1. Radial nerve-related complications have been quoted as approaching 3% in humeral dynamic compression plating (DCP) [2]. In their study the authors reported nerve-related complications as being 4.1% and 4.7% in DCP and intramedullary nailing (IMN) [3]. Thus, we feel that the nerve-related complications are not a point against plating.
2. The authors mention implant removal, usually at 12 months, in their Methods section [3]. We would like to know whether implants were removed from all the patients or only from a selected group. If implant removal was done only in a small group of patients, the indication for the same should be mentioned for the DCP and IMN groups. This may highlight an added advantage or disadvantage of the two procedures.
3. The authors mention that 12 out of 23 patients in the IMN group (>50%) underwent bone grafting [3].

However, there is no mention of the criteria for bone grafting. The requirement for bone grafting in more than 50% of patients in the IMN group offsets the advantage of IMN's being a less invasive surgery. Also, if bone grafting was done at the time of initial surgery, the biological advantage of retained fracture haematoma in IMN is lost. And, if the bone grafting was done at a later date, there are increased chances of delayed union with IMN. Additionally, plate fixation gives a lower relative risk of reoperation than does intramedullary nailing [1].

4. Lastly, the authors mention that the American Shoulder and Elbow Surgeons' scores were similar in the two groups. They also mention that four patients had restriction of full abduction. This, we feel, needs further clarification. It has been stated that shoulder pain and reduction in shoulder range of motion were significant associations with IMN. Whereas, plate fixation reduces the risk of shoulder problems in comparison with intramedullary nails [1].

References

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