Author's response to reviews

Title: Minimally invasive plate osteosynthesis with a Locking Compression Plate is superior to open reduction and internal fixation in the management of the proximal humerus fractures

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Date: 9 February 2014
Reviewer 1: The fractures are mixed group. AO classification was used with little explanation. Proximal humerus fractures: Do they include 3-part 4-part fractures?

Response: We used the standard AO classification for long bone fractures. We have included further discussion on AO classification and its application in this study. Our case series does include both 3-part 4-part fractures in both the groups.

Reviewer 2: Why the length of stay in both groups was so long (6.8 v/s 7.7 in MIPO and ORIF groups)?

Response: Compared to conventional literature, the average length of stay was slightly longer in this study. In some cases the nature of the injury required a longer length of stay. However, many of the patients stayed longer for social and various other reasons. This is common in China because patients prefer to stay indoors until the time of suture removal.

2. Why the rate of union was inferior (93%) in MIPO group compared to ORIF group (97.7%)?

In the introduction (Background), the authors have mentioned increase
risk of axillary nerve damage as and advantage of MIPO technique, which is obviously a wrong statement.

Response: We hypothesize that the lower rates of union in the MIPPO group may be due to the faster wound healing time. This was associated with decreased scaring and earlier exercise following surgery. This may have adversely influenced the fracture healing, leading to delayed union. In addition, MIPO was performed for Grade 3 and 4 fractures. Thus, reduction may have been difficult to maintain during fixation.

We agree with the reviewer that axillary nerve damage occurs more often following MIPO. The appropriate changes have been incorporated in the revised manuscript.