Reviewer's report

Title: Clinical Study of the Pronator Quadratus Muscle: Anatomical Features and Feasibility of Pronator-Sparing Surgery

Version: 2 Date: 18 February 2013

Reviewer: ShianChao Tay

Reviewer's report:

Line 112 – The flexor retinaculum is found over the carpal tunnel and should not be incised during distal radius exposure

Line 113-114 – Can you elaborate what structures you may need to go through or retract before you expose the pronator quadratus fully?

Line 116 – Do you perform brachioradialis muscle insertion release?

Line 116 – Can you please describe how the volar capsulotomy is performed? This is important because of the risk of injury to the radioscaphocapitate ligaments and the radiolunate ligaments.

Line 119 – Can you elaborate how the 2 K wires are positioned for temporary stabilization?

Line 122-126 – I think it would be of great benefit if you can diagrammatically illustrate how the measurements are made in a drawing or in a photo. Also, could you elaborate whether the measurements are projectional or along the surface of the bone?

Line 128 – 129 – Can you tell us if there is any tips that you use to help to align the longitudinal limb of the plate?

Line 131-133 – How did you manage to retract the distal edge of the PQ? Was there a need to incise the soft tissue along the distal edge of the PQ to allow you to retract the muscle?

Line 158-164 – I think a diagram to illustrate your results would be of great benefit. Numbers like these may not give people much of an impression.

Line 186-189 – Did you manage to see the deep and superficial head of the PQ during your clinical study?

Others –

1. I think it would be good to briefly report on union rate and time to union as one of the approaches of the PQ sparing technique is to preserve periosteal blood supply.

2. Please also report on the operative time and comment whether it took longer to perform PQ sparing approach.

3. Functional outcome in terms of range of motion would also be good although it is not an objective of the study.
4. Also, we would like to know what the post op rehabilitation regime is like and whether it is different between the traditional approach versus the PQ sparing approach.

5. Can you tell us if you routinely use a drain and if this PQ approach makes a difference in drain use.

6. Finally, could you show some x-rays of the results and also comment on plate position in your cases and whether plate alignment is likely to be better or worse in the PQ sparing approach.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'