Author’s response to reviews

Title: Locking Compression Plate distal ulna hook plate fixation Versus Intramedullary Screw fixation for displaced avulsion Fifth Metatarsal Base Fractures: a comparative retrospective cohort study

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Version: 1 Date: 12 Aug 2017

Author’s response to reviews:

Dear Dr. Guenther,

Thank you very much for giving us an opportunity to revise our manuscript, and thanks for the reviewers’ constructive comments and suggestions on our manuscript entitled “Locking Compression Plate distal ulna hook plate fixation Versus Intramedullary Screw fixation for displaced avulsion Fifth Metatarsal Base Fractures: a comparative retrospective cohort study” (BMSD-D-17-00704).

We have studied reviewers’ comments carefully and have made revision according to the reviewers’ comments. All the amendments and updated references were made in the clean revised manuscript. Additionally, the point-to-point responses were enclosed to this file and were noted in Blue.

We have made every effort to revise the manuscript, and we hope that the revision will meet with approval.

Once again, we greatly appreciate your/reviewers’ earnest work.

With best regards.

Yours sincerely,
Response to the reviewers’ comments:

Ali Al Kaissi (Reviewer 1): Authors compared the results of fixations by means of (LCP) versus (FMBFs) in 18 patients. All their patients were assessed clinically through age, gender and smoking and these indices were considered BY THE AUTHORS as the baseline characteristics!! In practice this is a short sighted and limited strategy. Assessment of results is a complex process and correlates to a long list of baseline characteristics. The latter is based on the clinical phenotype of each patient. Its a mistake to throw all patients in one basket. The prognostication of fractures and the applied intervention and subsequently the results depends heavily on each patient’s clinical phenotype and subsequently the baseline tool is the aetiology understanding. If the latter is missing, then, all the results are misleading and are non-contributary. Orthopedics is now strongly correlated to an extremely long lists of aetiology understandings, such as intrinsic bone disorders (osteogenic), myogeneic, neurogenic, metabolic and miscellaneous groups of disorders. None of these mentioned strategies were applied by the authors. The question is; Are we allowed to intervene in patients with deformities on segmental bases? Or we need to explore patients as a whole in order to understand the underlying pathology and to assess the results on strong bases?

Reply to Comment:

We are very grateful for your kindness in sparing your valuable time for reviewing our manuscript submission. We quite agree with your constructive suggestions which will make the quality of the manuscript greatly improved. In our study, the baseline characteristics include age, male and smoking, the results include time for surgery, time to partial weight-bearing, time for bony union, time for return to daily life, pain before surgery, pain 3 weeks, pain 6 weeks, pain 9 weeks, pain 12 weeks, AOFAS before surgery, AOFAS 3 weeks, AOFAS 6 weeks, AOFAS 9 weeks, AOFAS 12 weeks and complications. The aim of our study was to evaluate and compare the clinical results of internal fixation with screw versus a Locking Compression Plate distal ulna hook plate at the base of the fifth metatarsal bone, zone 1. It is a comparative retrospective cohort study. Similar baseline characteristics made the results of the two cohorts more related to the internal fixation.

Thank you
John P Albright (Reviewer 2): This is a case series of 43 patients with a particular type fifth proximal fifth metatarsal fracture where the pull of the peroneal tendons play a major role. It is known that this type of fracture presents a difficult situation for the usual screw fixation. The authors report 18 cases of fixation using a locking compression plate - distal ulna hook for a novel approach and compared to 25 cases with the standard intramedullary fixation. The patients were followed up at intervals over the first 12 months. While the numbers are small comparisons of the AOFAS mid-foot functional outcome scores appear to be different between the two groups for both functional and performance and surgical time required.

Specific Comments:

Abstract Methods Line 8: Did you mean 3, 6, 9, & 12 weeks or did you mean 3, 6, 9, & 12 months as stated later?

Abstract Results Line 7: Given your statement about a significant p value it would be best for the purposes of future meta-analysis that you include some sort of data table that basically lists all 42 patients with their scores at the end of 3, 6, 9, & 12 months.

Page 2 Materials and Methods: Please provide time frame that it took to collect 42 patients with this fracture.

Reply to Comment:

We are very grateful for your kindness in sparing your valuable time for reviewing our manuscript submission. We quite agree with your constructive suggestions which will make the quality of the manuscript greatly improved. All the pain weeks mean weeks after surgery, however the AOFAS weeks indeed were months. It was a mistake. All the times had been changed in the revision manuscript. Table 2 provided the data which can be used in meta-analysis. From July 2013 to July 2016, 42 patients (43 cases) with displaced avulsion Fifth Metatarsal Base Fractures were treated surgically and evaluated retrospectively.

Thank you

Johannes Beckmann (Reviewer 3): well written and arranged retrospective short study.

However, it is NOT an intramedullary-screw fixation you show in the pictures! please change into single screw fixation vs plate fixation!

Reply to Comment:
We are very grateful for your kindness in sparing your valuable time for reviewing our manuscript submission. The single cannulated screw in this fracture can be called intramedullary screw [1].


Thank you