Author's response to reviews

Title: Neck fracture of a cementless forged titanium alloy femoral stem following Total Hip Arthroplasty: a case report and review of the literature.

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Author's response to reviews: see over
Authors’ response to referees’ comments on MS: 1754371120150524.

Dear Editors,

We thank you and the reviewers for their comments on our manuscript entitled “Neck fracture of a cementless forged titanium alloy femoral stem following Total Hip Arthroplasty: a case report and review of the literature”.

We addressed all comments by modifying our manuscript accordingly. In the revised ms the modified text is written with red colour. The deleted text was left in place in order our reviews to check easily and conveniently the text changes. A point-to-point response to the concerns is presented hereafter:

Referee 1 (Prof. Elias Panagiotopoulos)

• However the abstract must be revised. First paragraph is a good history report of the fractured femoral stems but this should rather be placed in the discussion. In the second paragraph emphasis should be given in the reported case and the clear message which the authors like pass to the Orthopaedic community. We moved the history report of fractured femoral stems in the discussion paragraph.

• Moreover the authors state that although “the fracture occurred at the smallest section of the neck, the laser etched markings in a region of the implant neck subjected to high stresses, leaded to decrease fatigue resistance.” This statement looks rather unsubstantiated and needs either further explanation or should be withdrawn. We changed the wording to suggest that the laser marking could have acted as a fracture initiator.

• Geometry and machining on themselves are good reasons for fatigue fracture in the weakest site of the neck of the femoral stem. We added some considerations about the machining of the neck to suggest that it could also have acted as a stress riser.

• The discussion should be shortened. We deleted some details of the cited references, in order to keep only the main findings.

• Finally in the conclusion the message emerged form this study should be short and clear. We suggested, in the conclusion, some useful actions in order to reduce the risk of such fractures.

• Needs some language corrections before being published. We thoroughly revised linguistically the text of the ms.
Referee 2 (Prof. Rob Zwartele)

• I am not sure if all orthopaedic surgeons are well known with technical terms such as 'beach mark', ‘intergranular fracture' so they should be explained. We provided brief explanations in parentheses, for these specific technical terms.

• The discussion should be more compact; some references are discussed in too many details and some information is double. We deleted some details of the cited references, as well as the double information.

• Figure 3 and figure 4 do not give additional information and could be left out. We removed both figures and rearranged numbering accordingly. (Total number of figures is now 11-2=9)

• Needs some language corrections before being published. We thoroughly revised linguistically the text of the ms.

We hope that the revised manuscript fulfils the requirements set. Thank you for your consideration of our manuscript. Please contact us if you have additional questions or if further modifications of our manuscript is required.

Sincerely yours,

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