Author's response to reviews

Title: Dual mobility cup reduces dislocation rate after arthroplasty for femoral neck fracture

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Author's response to reviews:

Cover letter
Dear Editor and Reviewer, thank you very much for reviewing our paper and very valuable comments.

We now edited the manuscript after evaluating your comments.

REVIEWER RESPONSE:

The main weakness of the paper is that both 28 and 32 head sizes were used before converting to the Dual Articular cup (DAC).

We agree with the reviewer that when splitting the material; 2 dislocations out of 31 THA (32mm heads) is not significantly different from no dislocation out of 42 (DAC). Thus, it can be claimed that by only using heads 32mm, or greater, would have resulted in a dislocation rate not significantly different than that for the DAC. We have now clarified the difference in dislocation rate between the 28mm and 32mm cups in the result section and modified the conclusion.

We also believe that there are countries/hospitals still using conventional instead of cross-linked polyethylene (PE) and that some surgeons may be reluctant to go up in head-sizes because of reports of increased wear associated with larger head sizes. Further, although cross-linked PE has lower wear than conventional PE, it has also been shown to have a greater volumetric wear with larger head sizes and it been suggested that they should be used with caution (Lachiewicz PF, Heckman DS, Soileau ES, Mangla J, Martell JM. Femoral head size and wear of highly cross-linked polyethylene at 5 to 8 years. Clin Orthop Relat Res. 2009; 467(12):3290-6). This referece has now been added to the reference section.

We think it is a relevant finding that 4 experienced surgeons having 8 dislocations in 56 patients (using a mixture of 28mm and 32mm cups) experience none in 42 after changing to a DAC and that this finding may be of interest to those reluctant to use larger head sizes in conventional THA.

We hope our changes have improved the manuscript.
Thank you very much and very best regards,
Authors