

## ANSWERING REVIEWERS

**Name of journal:** World Journal of Orthopedics

**ESPS manuscript NO:** 27559

**Title:** Long-term results of Single Stage Acetabular component Exchange Arthroplasty With Retention of Well Fixed Cement-less Femoral Component in Management of Infected Total Hip Arthroplasty

**Reviewer's code:** 00467034

## COMMENTS TO AUTHORS

Interesting paper on a new treatment modality for infected THA that combines one stage treatment with retention of the femoral component. Title: It is not "Long-term", as the shortest followup is 3 years. Instead of defining virulence to common antibiotics, the authors should use a classification, for example, the one developed by McDonald et al.: McDonald DJ, Fitzgerald RH Jr, Ilstrup DM. Two-stage reconstruction of a total hip arthroplasty because of infection. J Bone Joint Surg [Am] 1989;71-A:828-34. Please add how many cases were excluded from this protocol, in order to know how often these cases could appear and be treated this way. 3 cases presented a fixed cup, and the authors removed it. Why was the cup chosen to be removed instead of the stem, as both of them were not loose? Would a debridement and retention have been successful?

### **Response to reviewer comments**

1-Title: It is not "Long-term", as the shortest followup is 3 years.

The title was changed to

**Results of Single Stage Exchange Arthroplasty With Retention of Well Fixed Cement-less Femoral Component in Management of Infected Total Hip Arthroplasty**

2-Instead of defining virulence to common antibiotics, the authors should use a classification, for example, the one developed by McDonald et al.: McDonald DJ, Fitzgerald RH Jr, Ilstrup DM. Two-stage reconstruction of a total hip arthroplasty because of infection. J Bone Joint Surg [Am] 1989;71-A:828-34.

The following sentence was removed from the manuscript

Virulence was defined by sensitivity to common antibiotics.

And changed to the following

and infection was not associated with culture of polymicrobial or antibiotic resistant micro-organism in the preoperative hip aspiration culture.

3- Please add how many cases were excluded from this protocol, in order to know how often these cases could appear and be treated this way.

From January 1997 to January 2012, the senior author (JDG) performed 600-revision Total hip arthroplasty for various reasons, 92 of them were two-stage exchange for infected Total Hip arthroplasty . The total number of infected THA case was 107. So, one stage exchange with retention of well-fixed acetabular component was done in 14 % of the cases.

The paragraph in the manuscript was added to the discussion section..

4- 3 cases presented a fixed cup, and the authors removed it. Why was the cup chosen to be removed instead of the stem, as both of them were not loose? Would a debridement and retention have been successful?

All the cups revised in our study were cement less multi-hole cup and The mean interval between the previous primary Total hip arthroplasty and single stage acetabular component exchange was 78.6 months SD 75.86 (range; 12-242 months).

According to our hypothesis, the well fixed cement less femoral stem act as shield that prevent spread the pathogens to the femoral canal.

We considered that the acetabular component even if well fixed must be removed due to the risk of failure of the locking mechanism of the liner and backside wear, also the cups were inserted since long time and were muti-hole which raise of the possibility of diffusion and spread of the joint fluid and formation of biofilm underneath the acetabular component.

Sometimes the polyethylene liner cannot be changed due to damage of the locking mechanism and lack of the inventory mainly if the acetabular component was old design.

Irrigation and debridement was not an option as all of the cases were diagnosed with chronic infection and consequently the results of I&D would be very poor.

**Reviewer's code:** 01200726

## COMMENTS TO AUTHORS

The present study reported no long-term results. Do the authors include single stage revision in the case with MRSA infection? Please describe using antibiotics more detail. Why did the authors remove well fixed cups instead of polyethylene change? Could the authors show representative radiographs?

### **Response to reviewer comments**

1-Do the authors include single stage revision in the case with MRSA infection?

No any patient diagnosed with MRSA infection of poly microbial infection was excluded and two-stage exchange was performed

2- Please describe using antibiotics more detail.

That is all the details available regard the use of post operative antibiotics

All patients were evaluated and managed by the infectious diseases team in our hospital. Postoperatively, the patients were treated with broad-spectrum antibiotics until the results of the culture were available. Organism-specific IV antibiotics were administered for 6 weeks. Antibiotics used were cloxacillin (n=8), Vancomycin (n=3), Clindamycin (n=2), cephazolin (n=1) and ceftriaxone (n=1). After discontinuation of the intravenous antibiotics, all the patients continued on oral antibiotics for additional 6 weeks, cloxacillin (n=12), and ciprofloxacin (n=3).

3- Why did the authors remove well fixed cups instead of polyethylene change?

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Sometimes the polyethylene liner cannot be changed due to damage of the locking mechanism and lack of the inventory mainly if the acetabular component was old design.

4-Could the authors show representative radiographs?

Figure was added demonstrating case presentation

**Reviewer's code:** 02704994

## COMMENTS TO AUTHORS

First of all, I would like to thank the authors for this interesting manuscript titled "Long-term results of Single Stage Acetabular component Exchange Arthroplasty With Retention of Well Fixed Cement-less Femoral Component in Management of Infected Total Hip Arthroplasty". Except for some revision, I think this paper gives us one of the management options for treatment of infected total hip arthroplasty provided strict selection criteria are met. I think the manuscript is suitable for the readers of World Journal of Orthopedics. About the study, I have the following questions and suggestions. Minor Compulsory Revisions Hypothesis Page 2 What is definition of the use of long-term suppressive antibiotics? Methods Page 4 1st and 2nd paragraphs should be in results section. Page 4 Regarding the operative procedure, the acetabular component was loose in 6 hips. Why did you remove the well-fixed acetabular components?

### **Response to reviewer comments**

1-Hypothesis Page 2 What is definition of the use of long-term suppressive antibiotics?

Use of long-term suppressive antibiotics is a method of treatment used for patients with infected THA refusing the surgery or medically unfit to do any operative interference

If any patient in our study had recurrence of the infection and require antibiotic therapy for long term that was considered failure of the procedure

However, none of the patients required long term suppressive antibiotics

2-Methods Page 4 1st and 2nd paragraphs should be in results section.

Paragraph 1 is documenting that the study was approved by IRB in our institute

And paragraph 2 is about the inclusion and exclusion criteria of the study

I think these paragraphs should be in the material and methods section.

3-Page 4 regarding the operative procedure, the acetabular component was loose in 6 hips. Why did you remove the well-fixed acetabular components?



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