Reviewer’s report

Title: Surgical injury and repair of hip external rotators in THA via posterior approach: A three-dimensional MRI-evident quantitative prospective study

Version: 0 Date: 24 Sep 2018

Reviewer: Tamon Kabata

Reviewer’s report:

General comment

This study prospectively analysed the surgical injury of hip external rotators after THA via posterior approach. The short rotator muscle repair after posterior approach is a basic surgical procedure which maintains joint function and stability, and most surgeon are interested in the effect of its repair. In order to verify the effect of muscle repair, the authors evaluated the volume atrophy and fat-muscle ratio of the piriformis muscle and internal obturator muscle using 3D MRI reconstruction images, as well as clinical findings.

The interesting point of this article was that priformis muscle was repaired, but internal obturator muscle was not.

The results were as expected. The impact of the message from this paper is moderate.

Specific comment

Title

I think the title "Surgical injury and repair of hip external rotators via posterior THA" should be "Surgical injury and repair of hip external rotators in THA via posterior approach"

Introduction

P4, Line 1

K-L approach → Kocher-Langenbeck approach

Materials and Methods

P7
The implant data used in this study must be shown in detail. It is very important. Which cup, liner, stem, and head were used? What were those materials? For example, titanium, cobalt chrome, stainless steel, ceramic, polyethylene, and so on.

P7, Line 7-9

Please describe the method of reattachment in greater detail.

For example, what kind of thread did you use? How did you reattach the capsule and tendon? Did you make suture holes to the greater trochanter? If

Results

P11, Line 5-6

In the hip OA patients whom THA is indicated for, preoperative hip range of motion is usually often limited as compared with a contralateral healthy side; particularly internal rotation.

From my experience, most hip OA patients can not internal rotate more than 30 degree because of pain or head deformity.

However, in this series, most patients could internal rotate almost 40 degree preoperatively, as same as contralateral healthy side.

I cannot trust this clinical data about range of motion.

Discussion

The authors should mention in the discussion part about theoretical effect of the short external rotator muscle insufficiency for the hip joint function, pelvic floor muscles function, or urinary function, and real effect after THA via posterior approach.

I think the insufficiency is usually can be ignored after THA.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons
CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal

Do you want to get recognition for reviewing this manuscript? Add a record of this review to Publons to track and showcase your reviewing expertise across the world’s journals. Signing up is quick, easy and free!

Yes