Reviewer’s report

Title: Fate of stable hips after prophylactic femoral varization osteotomy in patients with cerebral palsy

Version: 0 Date: 29 Jan 2018

Reviewer: Woo Young Jang

Reviewer’s report:

This study investigated the outcomes after FVO in stable hips with CP. The authors reported that prophylactic FVO in the stable hip of patients with CP showed good surgical outcomes, without a risk of hip displacement throughout the follow-up duration.

Main concern:

1. In the conclusion, the authors reported that the stable hip did not show risk of hip displacement during follow up, but the p-value of the follow-up duration in the linear mixed model presented in Table 3 shows possible marginal significance (p=0.057). This requires a description of whether there may be a possible significant association between migration percentage and follow-up duration in the stable hip, possibly with longer follow up duration or with a greater sample size of the stable hip group.

2. In addition, in Table 2, the immediate postoperative migration percentage in the stable hip group showed an average increase of 11.5% in the final follow-up. This is not different from the 11% seen in the displaced group. Further explanation is needed.

Specific reviews.

1. Line 60-63: 'Another recent study', seems to refer to the current authors' study. The word "another" needs to be revised to "our" in order to give an objective point of view for readers.

2. Line 63-65: It is necessary to clarify the sentence "recently, concurrent prophylactic FVO for stable hips has been performed in patients with CP undergoing hip reconstructive surgery for the contralateral displaced hip". Is this practice the norm for the authors or is there a reference that shows that this practice is being performed regularly by others? If other authors are advocating this practice, a reference should be given.

3. Line 94-97: Why did the authors release gracilis, semitendinosus and semimembranosus tendons that are mainly related to knee motion, when there was insufficient hip abduction?
4. Line 101-104. Since FVO itself is a kind of open reduction, please clarify what kind of open reduction was additionally performed.

5. Line 195-196: The authors described that FVO surgery was performed in 80 stable hips among 119 patients. What is the criteria of prophylactic FVO?

6. Line 201: Please clarify the abbreviation 'SDR'?

7. Line 234-250 It is necessary to discuss how the literature content described in these two paragraphs relate to the findings of the current study. Please elaborate on the importance of the findings of this paper in relation to the references discussed in these two paragraphs.

8. Line 284-287: Please give a reference for the sentence "While a positive relationship between acetabular dysplasia and MP has been reported...".

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.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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 recommend additional statistical review

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