Reviewer’s report

Title: The Correlation between 2D Femoral Notch Parameters and 3D Notch Volume: a Retrospective MRI Study

Version: 0 Date: 24 Feb 2019

Reviewer: Harukazu Tohyama

Reviewer's report:

Abstract
Line 88: The "useful predictors of the risk of ACL injuries" is too subjective. The authors should change it to a more objective word, such as a "predictable parameters to the risk of ACL injuries".

Background
Line 116: "Most studies[12-14], with the exception of one[9], have come to the conclusion that a smaller notch volume indicates a higher risk of ACL injury." Should be "Most studies, with the exception of one [9], have come to the conclusion that a smaller notch volume indicates a higher risk of ACL injury [12-14]."

Methods
Line 138: "We recruited only adults aged 18-40 years old for the femoral intercondylar notch measurements in this study." How the authors selected 60 males and 60 females with ACL injuries among all patients who had undergone MRI examination in the authors' hospital from June 2015 to July 2016?

Line 138: "All participants were newly diagnosed in our hospital from June 2015 to July 2016." How many patients with a non-contact ACL injury underwent MRI examination in the authors' hospital from June 2015 to July 2016?

Line 148: "We obtained 120 case-control pairs of individuals (60 males and 60 females) who were matched for gender and age." How the authors selected

Line 149: "The demographic data (age, body height, and weight) were recorded. All of the ACL-injured patients suffered first-time, sport-related, non-contact ACL injuries within one year." Were there any patients with episodes of ACL injuries in bilateral knees in these patients?

Results
Line 197: "The demographic data (age, height and weight), NW, NWI and notch volumes of the participants are displayed in Table 1, which includes the statistical results for the overall data and the subgroup data of the ACL-injured males, ACL-intact males, ACL-injured females and ACL-intact females." Please add the information about the time of participation in physical and sports activities, if it is possible.
Discussion
Please briefly discuss advantages and disadvantages of femoral notch 2-D parameters and the 3D notch volume.

Table 1: The authors should statistically compare these demographic data and notch data between ACL-injury and control subjects in overall participants as well as subgroups.

**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.

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Acceptable

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