

# Letter to the editor: Femoropatellar Radiographic Alterations in Cases of Anterior Cruciate Ligament Failure.

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Dear editor,

We were interested in reading 'Femoropatellar radiographic alterations in cases of anterior cruciate ligament failure' by de Vasconcelos D. P. et al.<sup>1</sup> published in the esteemed Revista Brasileira de Ortopedia journal on the year 2015. doi:10.1016/j.rboe.2015.01.005. The objective of the study was to assess the femoropatellar radiographic alterations in 30 patients with anterior cruciate ligament (ACL) failure using three parameters.

The authors selected 30 volunteer patients with unilateral isolated ACL tear of > 1 duration for the study and compared them with normal contralateral knees.<sup>1</sup> The patellar height was studied using the Caton-Deshchamps ratio, whereas the patellar tilt and translation were assessed by lateral inclination angle and congruence angle, respectively. Although the inclusion criteria states that knees with single ACL tear were included, no mention was made of the medial patellofemoral ligament integrity throughout the text. In fact, the medial patellofemoral ligament deficiency predisposes abnormal patellofemoral alignment.<sup>2,3</sup> The exclusion criteria should also have included patellar dislocation as one of its criteria as it can influence the objective of the study.

Furthermore, the study employs the paired *t*-test as the statistical tool to find out significance of the variables. Although the sample size used is 30, which is the minimum needed for the paired *t*-test, the authors in the text mention that inversion of lateral inclination was seen in only 2 knees ( $-2.2^\circ$  and  $-4.8^\circ$ ),

which substantially makes them outliers in the sample. Outliers in a sample make the assessment of paired *t*-test improbable, since it is done on basis of normal distribution. The Mann-Whitney test would have been better.

Finally, no mention regarding the intra- and interobserver coefficient was made in the study. It would have been ideal to have the above two parameters, which would increase the strength of the study.

To conclude, the statistical analysis performed in the study needs to be verified and the exclusion criteria should also have included knees with medial patellofemoral ligament deficiency and history of patellar dislocation.

### Conflicts of Interests

The authors have no conflicts of interests to declare.

### References

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