Article published online: 2021-02-19

Answer to the Letter to the Editor Regarding the Comments on the Article "Radiological Evaluation of the Femoral Tunnel Positioning in Anterior Cruciate Ligament Reconstruction"

Resposta à carta ao editor referente aos comentários sobre o artigo "Radiological Evaluation of the femoral Tunnel Positioning in Anterior Cruciate Ligament Reconstruction"

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Rev Bras Ortop 2021;56(1):127.

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Dear editor,

First of all, we would like to thank you for your interest in our article. We appreciate your references regarding our study.

The main objective of our study was to evaluate the inclination and length of femoral tunnels and to compare the measurements obtained through computed tomography (CT) and anteroposterior (AP) radiography. Since the femoral tunnel is oblique, there is no supplementary test nor gold standard method to measure its length. Length assessment in an axial CT or CT with three-dimensional (3D) reconstruction seems more reliable. However, as described in our study and reported by the cited authors, the difficulty in comparing different tests is evident, mainly because radiography is subject to a bias regarding knee positioning in addition to the overlap and magnification of anatomical bone landmarks.

The radiological measurements in AP view were based on a line that inferiorly touches the image formed by the overlap of the entire femoral condyle, not considering femoral rotation. Since the femoral tunnel is oblique, a CT standard axial section does not consider a more proximal position of the anatomical curvature of the condyle. Therefore, any comparison is unfeasible, since these reference lines may not be parallel.

Therefore, we decided to measure the inclination and length of the femoral tunnel at the same tomographic position, considering the lower portion of the femoral condyles. A perfect comparison between tests would require the knowledge of the real anatomical inclination and length of the femoral tunnel, either in a cadaveric evaluation or using an anatomical model made with a 3D printer.

Conflict of Interests

The authors have no conflict of interests to declare.

References

1 Hensler D, Working ZM, Illingworth KD, Tashman S, Fu FH. Correlation between femoral tunnel length and tunnel position in ACL reconstruction. J Bone Joint Surg Am 2013;95(22): 2029–2034

received
July 29, 2020
accepted
September 16, 2020

DOI https://doi.org/10.1055/s-0040-1722595.
ISSN 0102-3616.

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