Comments on the Article 'Radiological Evaluation of the Femoral Tunnel Positioning in Anterior Cruciate Ligament Reconstruction'

Comentários sobre o artigo "Avaliação radiológica do posicionamento do túnel femoral na reconstrução do ligamento cruzado anterior"

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Rev Bras Ortop 2021;56(1):125–126.

Dear Editor,

The debate on the ideal positioning of femoral tunnels is an important topic of research in recent times. In this regard, the article by Peres et al is very important, because it evaluates and compares the inclination angles and femoral tunnel lengths between two commonly used techniques of anterior cruciate ligament (ACL) reconstruction.[1] We found that they have made a very good comparison between the transtibial and the transportal techniques. They have used the coronal plane inclination angle and the femoral tunnel length as variables for comparison between the two techniques.

In this study, the authors have compared the femoral tunnel lengths in the coronal plane using a computed tomography (CT) based evaluation. This method of estimation of femoral length has serious flaws, as they are measuring the length in the coronal plane, while the tunnel is drilled at an angle starting posteriorly and ending anteriorly. This has been explained by providing examples from cases performed in our institute.

►**Fig. 1** shows two coronal images of the same patient, in whom the femoral tunnel has been drilled using transportal technique. The CT scan was performed 1 week after the surgery. The coronal cuts are taken at different depths from the anterior femoral articular surface. As can be clearly seen, there can be a significant difference in the measurement of femoral tunnel lengths at different positions from the anterior surface. The reason for this difference is that the tunnel is not drilled parallel to the coronal axis. Rather, it is drilled at an anteroposterior angle, with the entry point being more posterior than the exit point.

We recommend that the femoral tunnel length can be best measured in axial plane CT scans using curved reformats, as shown in ►**Fig. 2**. Curved reformatting allows us to visualize the entire tunnel in its length and provides accurate length. A similar method of calculating the femoral tunnel length has been used by Sim et al in their article comparing two techniques of femoral tunnel preparation.[2]

Excluding this error, we find that the article provides valuable information about the femoral tunnel placement in both techniques.

Conflicts of Interests

The authors have no conflicts of interests to declare.

received
January 12, 2019
accepted
February 19, 2019
published online
April 1, 2019

DOI https://doi.org/10.1055/s-0039-1685462.
ISSN 0102-3616.

Thieme Revinter Publicações Ltda., Rua do Matoso 170, Rio de Janeiro, RJ, CEP 20270-135, Brazil

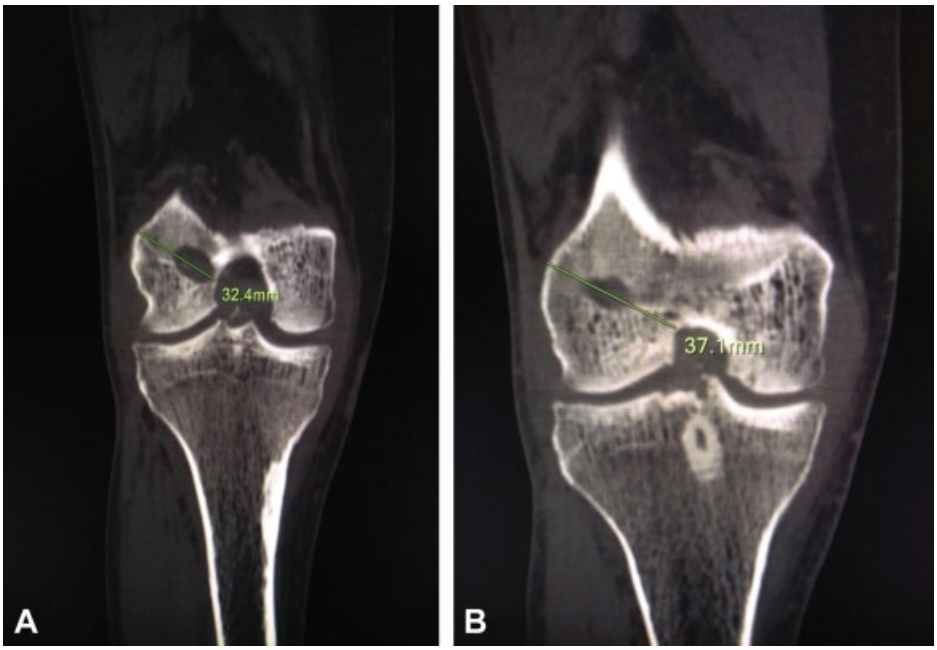

Fig. 1 Coronal computed tomography images of the same patient showing two different femoral tunnel lengths at two different positions.

Fig. 2 Axial curved reformatted computed tomography image visualizing the entire femoral tunnel and measuring the exact femoral tunnel length.

References

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