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Distal femoral rotational alignment in the Indian population an important consideration in total knee arthroplasty: Letter to editor



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Rotational alignment
PCA
Indian knee
MRI analysis

Dear Editor,

We read with interest the study entitled “Distal femoral rotational alignment in the Indian population an important consideration in total knee arthroplasty” by Tul B. Pun et al.¹ We believe that the results of the study provide contribution to the literature in terms of MRI measurements in Indian knee. However, we have few concerns about methodology and results of the study.

The author analysed MRI scans of 40 knees in order to measure the angular relationships of the distal femoral rotational axes in the normal Indian population. The authors used Posterior condylar axis, transepicondylar axis, Whitesides line and Whiteside-epicondylar angle for anatomical measurement. The authors compared the PCA and W-EP angle of 40 MRI with mean age of 29.45 years. The author compared his study to other published literature.^{2–5} Nagamine et al.² and Mullaji et al.³ used CT scan of arthritic knees as a tool for measurement of PCA, while Yip et al.⁵ conducted his study on cadavers with mean age of 78 years. One cannot compare angular measurements on CT, MRI and cadaveric analysis of normal and arthritic knee with heterogeneous age group and different measurement modalities. The MRI uses cartilaginous joint referencing for PCA and the values between CT and MRI might not be statistically significant in normal knees, but may be misleading in valgus knees because of degeneration of the posterior femoral condyles.⁴ The authors did not exclude Varus/valgus malalignment of the knee which can cause inaccurate knee

measurements.^{2,4}

We conclude that the various comparisons and conclusions drawn from the studies need to be verified and reconsidered.

Acknowledgement

Nil.

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