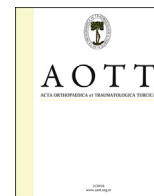




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Comment on: Measurement of the knee joint line in Turkish population

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To the Editor,

We read with interest the article entitled “Measurement of the knee joint line in Turkish population” by Gürbüz et al in Vol. 49, No. 1 (2015) of your journal.¹ We congratulate them for their inspiring work.

The authors measured the femoral width, the distance from the apex of the fibular head to joint line and the distance from the adductor tubercle to the joint line to determine the knee joint line level relative to these landmarks and the correlation of relative distance of joint line level to the femoral width. However, the study itself has some methodological drawbacks;

1. A total of 117 knees were included in the study, but the number of patients was 108. That means nine patients were recorded twice with right and left knee measurements. This is not appropriate from the statistical point of view since joint line levels relative to specific landmarks for individuals are not expected to be different in each knee. Therefore, to our knowledge, all the studies in the literature cover only one leg for this type of morphometric studies; otherwise, bilateral measurements should be evaluated in separate groups.^{2–5}
2. To ensure images representative of normal anatomy, patients with preexisting radiologic evidence of arthritis in their knees should be excluded from the study.^{2–5} However, the exclusion

criteria of the authors did not cover knee osteoarthritis that definitely may alter joint level measurements due to erosions of the subchondral bone as seen in Fig. 1 in the original article (knee with Kellgren–Lawrence Grade 3 osteoarthritis and possible valgus deformity). In addition, the patella in the figure showing the knee joint should have been centered, since it is one of the criteria of the study.

3. The results of the statistical analysis given in the article are very preliminary to understand the relationship between variables in details. For instance, just by reporting the R^2 value for linear regression analysis, we could estimate what percentage of the variability in the dependent variable (adductor tubercle joint line level-AJD) is explained by the independent variable (femoral width-FW).

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In reply,

Thank you for your interest in our article. We included 117 knees of 108 patients in the study. The bilateral measurement percentage was 8%, though some studies include bilateral measurement of up to 25%.^{1–4} The mean age of patients was 31.3 years (range: 16–82 years). Our study comprises a wide age range, but only 7 patients were over 60 years old. Similar studies have used an age group of up to 89 years old.^{4–6} We thank for your comment, because the patella must be centralized, but unfortunately that figure was overlooked. A statistician performed the statistical analysis, but the data may need to be evaluated by another statistician.

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