COMMENTARY

Comment on "Musculoskeletal computational analysis on muscle mechanical characteristics of drivers' lumbar vertebras and legs in different sitting postures"

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Dear Editor,

We read with great interest the study by Gao et al.[1] in which they demonstrated that a much larger back-rest inclination angle, approximately 15°, and a slight backward seat-pan, about 7°, may relieve the muscle fatigue and make driving more comfortable. In our opinion, there are some issues that should be addressed.

Firstly, it is novel to use AnyBody to evaluate drivers' sitting postures. Even though this article is not an application case but a scientific study, it is still worth to explore this attempt. The effect of this model should be confirmed in practice.

Secondly, the authors present an interesting study to find the most comfortable driving posture. However, I am concerned there are basic methodological limitations that make it fail to answer the study question. For example, seat conditions such as cushion, material, shape, and boundary conditions related to car driving phenomena were not shown in the study. Thus, some factors that may influence driving posture should be considered in a future study. Also, it is necessary to show the criteria to determine a comfortable driving posture.

REFERENCES

1. Gao F, Zong S, Han Z-W, Xiao Y, Gao Z-H. Musculoskeletal computational analysis on muscle mechanical characteristics of drivers' lumbar vertebras and legs in different sitting postures. Rev Assoc Med Bras. 2020; 66 (5) 637-642.

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