Letter to the Editor concerning “Proposal for a new trajectory for subaxial cervical lateral mass screws” by S. Amhaz-Escanlar et al. (Eur Spine J; 2018: doi:10.1007/s00586-018-5670-5)

Gaston Camino Willhuber¹

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Dear Editor,

I read the paper by Amhaz-Escanlar et al. [1] with deep interest. I appreciate the author’s work on this topic. It is a well-performed description; however, I have some comments about this paper.

This is a technical proposal to improve screw lateral mass purchase in the subaxial cervical spine by increasing the screw length trajectory based on the lateral mass shape. The authors observed a significant increase in length trajectory with theoretically lower risk of neurovascular injury compared to standard techniques [2, 3].

One of my concerns is related to the entry point proposed by the authors, which is lower and medial compared to the standard techniques, they mention a technical difficulty due to the spinal processes, this could be a potential limitation of this promising technique, especially if no decompression is associated. How the authors address this problem? Is there any level more difficult than another? I can imagine that C6 level can be more challenging due to prominent C7 spinal process.

Another question is related to the facet joint violation risk by lowering the entry point, has the authors analyzed this topic? It would be interesting to observe a lateral X-ray to assess the screw-facet joint relationship. In addition, the authors mentioned as a limitation of their study the use of drill tip wire instead of screws; it would be important to show the screw construct and analyze the risk of facet violation or fracture with screws instead of guide wires.

Considering that the risk of neurovascular damage and the screw pull-out with the standard techniques are relatively

low, what is the real benefit of this technical report that could drive the surgeons to choose this new technique over the standard ones?

It would be interesting to observe a screw construct and also analyze screw-rod connection with the new and standard entry points in case you have to change the entry point in a real scenario.

As the authors mentioned, further studies are warranted to determine the usefulness of this new trajectory technique and this paper is the start point.

I look forward to read clinical and imaging studies about this new procedure to better understand the above-mentioned questions.

Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

References

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✉ Gaston Camino Willhuber
gaston.camino@hospitalitaliano.org.ar

¹ Orthopaedic and Traumatology Department, Institute of Orthopedics “Carlos E. Ottolenghi,” Hospital Italiano de Buenos Aires, Potosi, 4215 Buenos Aires, Argentina