

Answer to the Letter to the Editor concerning “Is the 4 mm height of the vertebral artery groove really a limitation of C1 pedicle screw insertion” by Da-Geng Huang, et al. Eur Spine J (2014) 23(5):1109–1114

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Dear Editor,

We thank the authors of the Letter to the Editor for their suggestions. And we would like to response to their suggestions and questions in this reply.

Although our study is a retrospective case series, not a morphology study based on CT image, we agree that to provide more details, such as CT device make and model, used software and device's calibration as the authors of the letter suggested will make the paper better. The CT images in our study were obtained using a 16-slice spiral CT (*Philips, Brilliance 16*). Patients were placed in the supine position with head and neck in the neutral position and scan was carried out with the following settings: 120 kV, 180 mA, collimator width 0.75 mm, collimator thickness 0.75 mm, reconstruction slice thickness 1.0 mm, screw pitch 1.0, and scanning time 750 ms/slice. The measurements were made to an accuracy of 0.1 mm under the bone window setting by a trained radiologist using the *Extended Brilliance Workspace v3.0* software. Many authors measured the height of C1 pedicle basing on CT images [1–3]. In our hospital, measuring the height of C1 pedicle and its medullary canal basing on CT image is a routine preoperative evaluation made by a trained radiologist, so this is not a blind experiment. The reliability of such a measurement has been demonstrated in our previous study [2]. As the authors of the letter mentioned, the subjects' sample of

this study is not homogenous enough. That is because such cases are relatively rare and the number of patients in the study is quite limited which we have mentioned in the limitations of our study [4]. In our opinion, the aim and the real meaning of this study is to report the possibility of C1 pedicle fixation in small pedicles. We agree with the authors of the letter that a further research of greater rigor is needed to advance the evidence on this topic, which has also been mentioned in the limitations of our study [4].

At last, we thank the authors of the letter again for their suggestions. And we believe that their suggestions will facilitate the further study.

Conflict of interest None.

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