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LETTER TO THE EDITOR (BY INVITATION) - PITUITARIES

Response to "Going beyond scoring systems for cavernous sinus involvement in trans-sphenoidal pituitary surgery"

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Dear Editor,

We read with pleasure the encouraging comment of Dr. Mattogno and colleagues on our paper entitled "Predicting extent of resection in transsphenoidal surgery for pituitary adenoma." We are very grateful for their effort to validate the new Zurich score and confirm prospectively with their experience that (a) the score predicts well resection in pituitary adenoma surgery and (b) the score shows a good interrater agreement. These are exactly the goals any surgical score should have.

Dr. Mattogno et al. suggest through the title of their letter that scoring systems are not needed anymore for trans-sphenoidal surgery. As we wrote in a recent reply [3] "no general surgical classification can describe the extent of the real finding," we nevertheless firmly believe that reliable surgical scores fulfill their purpose in clinical practice, because they "help simplify complex disease entity, favor communication, improve comparisons and prediction, and support research."

Our colleagues are right when they state that "suprasellar extension is another important issue," as well as "other relevant parameters were not fully considered in the proposed grading system." We do, however, not neglect suprasellar extension in our score (see Figure 2 in the original publication [4]) and similarly we are interested in "other relevant parameters" as shown in a recent publication where we used a deep learning–based algorithm to predict gross total resection [5]. *Beauty lies in simplicity* and this is what we believe in. Many different highly detailed score systems have been proposed over the decades, but practically none of them withstood the test of time. The reason of their failure lies in the fact that the majority of them were too complicated for the clinical routine, and thus eventually fell in oblivion. The Knosp score [1], on the contrary, is the simplest score, and therefore the most used one. It is a remarkable score, despite the fact that it considers only the relationship of the lateral limit of the adenoma with three lines (medial tangential, secant, and lateral tangential) drawn around the coronal sections of the carotid artery. The new Zurich score is as simple to use as the Knosp although it shows a higher interrater agreement rate [2, 4].

The question of whether the Zurich score is a good one is too early to be answered, but the score satisfies two essential features: it is reliable and simple, as confirmed also by our Roman colleagues.

We thank Dr. Mattogno and colleagues as well as the editor for giving room for this stimulating discussion.

This article is part of the Topical Collection on *Pituitaries*

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