



Response to Letter to the Editor: Nuancing the role of transorbital endoscopic approaches in skull base surgery

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To the Editor,

We would like to thank you for the opportunity to respond to the letter titled “Nuancing the role of transorbital endoscopic approaches in skull base surgery” by Manet et al. [1]. We would also like to thank Manet et al. [1] for their interest in our paper “Transorbital endoscopic approaches (TEAs) to the skull base: a systematic literature review and anatomical description” and appreciate their feedback [2].

In their letter to the editor, the authors express concerns regarding the TEAs, particularly on their morbidity and applicability. They mention that burdens during surgery are

substantially different than in the laboratory environment. Undoubtedly, we agree with this comment, yet we have noticed that most approaches developed in the anatomical laboratory were also employed in the operating theaters. They also oppose the use of the expression “well-established surgical methods” and state that TEAs are a poorly defined concept. However, our review demonstrated that, with the natural technical variability characterizing any surgical procedure, surgical methodology is fairly maintained throughout publications. Although indications are still to be clearly defined, we are of the opinion that the surgical technique of TEAs has achieved a sufficient establishment.

The objective of our study was to evaluate the published evidence in terms of TEAs. For this purpose, a systematic literature review was performed to summarize the available data, which were actually heterogenous, and anatomical dissections were performed to provide the reader with a glimpse of surgical anatomy that might result “unusual” as seen from TEAs perspective. The method of the study was designed to be critical, comprehensive, and repeatable. Thus, interpretation of findings and subsequent conclusions as reported in articles included in the review were also considered and incorporated in the publication. Our personal experience and opinion were kept to a minimum within the scope of this review. Moreover, Manet et al. [1] mentioned that the use of TEAs relies on weak evidence. Our systematic review confirms this statement, but it is worth emphasizing that the selection of surgical approaches in the fields of neurosurgery and head and neck surgery is not based on sound evidence, either. We hope that our study provides with comprehensive information on the current state of the art on these approaches.

Manet et al. [1] also report that avoidance of a large incision resulting from transfacial/transcranial approaches and lack of visible scars should be debated. With the limitations

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implied by lack of non-comparative data, we think that the extent of the reduction of skin incision ensuing from TEAs is poorly arguable. Esthetic outcome is an important quality of life issue for some patients, which may even drive their decision regarding the choice for the method of treatment [3]. Knowledge of alternative skull base approaches and their combinations permits the surgical team to tailor an approach with an optimal tumor resection with the best possible functional and cosmetic results [3–5]. By citing a fragment of our review, Manet et al. [1] also highlight that they disagree with considering TEAs as associated with “limited morbidity,” and some complications classified as “minor” according to the Clavien-Dindo system [6] should instead be classified as “major.” These arguments reiterate what is expressed in the discussion of our systematic review. It should be noticed that the expression “limited morbidity” is used in the introduction, referring to the way TEAs are conceived according to the most relevant publications. This expression should be read together with the fact that when considering TEAs “based on their genuine clinical indications and morbidity,” the conclusion is that “it is still too emphatic to name them as minimal invasive approaches, as complications do occur in a non-negligible number of patients (31.1%).” Furthermore, Manet et al. [1] reinforce the message “that the classification employed in this systematic review rates complications such as diplopia and upper eyelid necrosis as minor events, whereas one should take into consideration the dismal impact of these occurrences on patient’s quality of life.” The logical conclusion is that a classification of complications specific to the field of neurosurgery and head and neck surgery should be developed and validated to express the impact of surgery-related adverse events more reliably.

We wish to emphasize once more that TEAs are not proposed to replace classical approaches, but several authors concluded that they proved useful in well-selected patients and should therefore be in the pocket of a skull base team.

Finally, we would like to thank again Manet et al. [1] for their comments: we believe that data analysis and open discussion on complications is of paramount importance to avoid the so-called Scott’s parabola and truly advance the field of skull base surgery [7].

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Declarations

Competing interests The authors declare no competing interests.

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