The Use of Artificial Intelligence as a Tool in the Management of Bilateral Vocal Fold Paralysis

Dear Editor,

With interest, we reviewed the correspondence entitled: "Letter to the Editor: Evaluating the Potential of AI Chatbots in Treatment Decision making for Acquired Bilateral Vocal Fold Paralysis in Adults."[1] The author discussed the key findings of our paper entitled "*Evaluating the Potential of AI Chatbots in Treatment Decision-making for Acquired Bilateral Vocal Fold Paralysis (BVFP) in Adults*,"[2] and highlighted two important additional points. We thank the author for their appreciation of our paper and in this letter, we would like to respond to these additional points.

The first point is regarding the generalizability of the results of our paper. The author – rightfully – addresses the potential bias in our methodology regarding the low number of cases being used, and moreover, all of them being cases from European expert laryngology centers. Indeed, decision making for a rare and complex condition as BVFP can be even more challenging in areas with geographic or social healthcare access barriers, which are more likely to be found in other parts of the world than Europe. An endoscopic partial arytenoidectomy was the preferred choice of treatment by the multidisciplinary teams (MDT) for most BVFP cases in our study.[2] However, this is a procedure that requires specific surgical skills and equipment, and patients are at risk for future revision procedures due to potential recurrent scarring in the posterior glottis.[3] Other treatment options such as a tracheotomy, which was mentioned as the primary treatment for many cases by both Chatbots in our study, could be considered by local MDTs as the preferred mode of treatment in areas with less accessibility to healthcare.

The second point is regarding the integration of AI in healthcare, and more specifically on the importance of AI having a complimentary role rather than replacing human judgment. We do agree with the author that fostering human expertise and the development of robust datasets are very important elements to advance the responsible adoption of AI in our field. A recent narrative review,[4] that serves as an introduction to AI for otolaryngologists, concluded that physician involvement will be crucial in creating finetuned large language models specific to otolaryngology to maximize utility and reliability of medical AI applications. In order to do so, there is a need for robust datasets, and the lack of these is a commonly reported limitation in otolaryngology AI articles. For a complex and rare condition as BVFP, multi-institutional and international collaborations are key to develop these datasets as Evangelista and Bensoussan[5] recently highlighted in their paper on standardization, collaboration and education in the implementation of AI in Otolaryngology.

Finally, education of otolaryngologists, and subsequently patients, is crucial for responsible AI adoption. Reporting on the current limitations and having discussions such as ours in these Journal Correspondence sections can contribute to better understanding.

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Declaration of Competing Interest

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Emilie A.C. Dronkers [*]
Ahmed Geneid [†]
Chadwan Al Yaghchi [*]
Jerome R. Lechien [‡,§]

[*] *National Centre for Airway Reconstruction, Imperial College Healthcare NHS Trust, London, UK*
[†] *Department of Otolaryngology and Phoniatrics-Head and Neck Surgery, Helsinki University Hospital and University of Helsinki, Helsinki, Finland*
[‡] *Department of Anatomy and Experimental Oncology, Mons School of Medicine, UMONS Research Institute for Health Sciences and Technology, University of Mons (UMons), Mons, Belgium*
[§] *Department of Otorhinolaryngology and Head and Neck Surgery, Foch Hospital, Paris Saclay University, Paris, France*

Address correspondence and reprint requests to Emilie A.C. Dronkers, National Centre for Airway Reconstruction, Imperial College Healthcare NHS Trust, Fulham Palace Road, London W6 8RF, UK.
E-mail: emiliedronkers@gmail.com (E.A.C. Dronkers).

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