The Journal of Laryngology & Otology

cambridge.org/jlo

What does the future hold for otology?

Jonathan Fishman, Edward Fisher and Musheer Hussain, Senior Editors

Editorial

Cite this article: Fishman J, Fisher E, Hussain M. What does the future hold for otology? *J Laryngol Otol* 2019;**133**:741. https://doi.org/10.1017/S0022215119001889

In this month's issue of the *Journal of Laryngology & Otology*, Robert Jackler presents a written synopsis of his learned JLO visiting Professorship Lecture, presented at the Royal Society of Medicine in May 2019.[1] The field of otology is increasingly at the forefront of innovation in science and medicine, and he argues that we can expect much progress in the field of inner-ear drug delivery systems, auditory genetics, ototoxic chemoprevention, organ of Corti regeneration, artificial intelligence and the rise of robots, among other areas, in the years to follow. Many of these areas are already starting to bear fruit.[2–5] The article provides a fascinating overview of emerging (and sometimes disruptive) technologies. It is apparent from reading this article that as more non-surgical, advanced, biological methods of curing middle- and inner-ear diseases are discovered, management of implanted devices will likely become a progressively more dominant component of otology. The evolution of technological advances will be driven by our creativity, perseverance, and especially our ability to recruit experts in other fields of science and technology to engage in innovation relevant to hearing and balance.

Two articles in this month's issue revisit coblation tonsillectomy. Lieberg *et al.* compared the extent of tissue damage produced by conventional cold steel and coblation tonsillectomy by histopathologically evaluating excised tonsils.[6] The authors conclude that coblation tonsillectomy is superior in terms of decreased early post-operative pain and less damage to surrounding tissues. The authors hypothesise that the reduction in post-operative pain may be due to lower mast cell degranulation in coblation tonsillectomy. Junaid *et al.* compare extracapsular and intracapsular coblation approaches, and conclude that intracapsular techniques result in lower post-operative pain scores and reduced overall morbidity.[7] However, as the authors point out, the main disadvantage of the intracapsular technique is the increased likelihood of remnant tonsil tissue with the future risk of tonsillar regrowth and recurrent tonsillitis requiring further tonsillectomy. Both these articles concur with a previously published prospective, randomised, single-blind study comparing coblation and bipolar tonsillectomy techniques published in this journal last year.[8] A study estimating the cost-effectiveness of coblation, also published last year, appeared to show that coblation is as least as cost-effective an intervention as cold steel techniques for adult and paediatric patients.[9]

Finally, Cayir *et al.*, in this month's issue, investigate the effects of nasal surgery on sexual function in patients with perceived nasal obstruction.[10] The authors conclude that surgical treatment of nasal obstruction by septoplasty, endoscopic sinus surgery, concha bullosa excision or radiofrequency can significantly improve sexual performance in patients with perceived nasal obstruction. Future studies assessing the effects of nasal surgery on quality of life should therefore consider this also as a quality of life measure.

References

1 Jackler RK, Jan TA. The future of otology. *J Laryngol Otol* 2019;**133**:747–58
2 Lou ZC, Lou ZH, Xiao J. Regeneration of the tympanic membrane using fibroblast growth factor-2. *J Laryngol Otol* 2018;**132**:470–8
3 Arslan IB, Aslan GG, Mercan GC, Vatansever S, Cukurova I, Gokalp S *et al.* Therapeutic and protective effects of autologous serum in amikacin-induced ototoxicity. *J Laryngol Otol* 2018;**132**:33–40
4 Karabulut B, Deveci I, Sürmeli M, Şahin-Yilmaz A, Oysu Ç. Comparison of functional and oncological treatment outcomes after transoral robotic surgery and open surgery for supraglottic laryngeal cancer. *J Laryngol Otol* 2018;**132**:832–6
5 Hardcastle T, Wood A. The utility of virtual reality surgical simulation in the undergraduate otorhinolaryngology curriculum. *J Laryngol Otol* 2018;**132**:1072–6
6 Lieberg N, Aunapuu M, Arend A. Coblation tonsillectomy versus cold steel dissection tonsillectomy: a morphological study. *J Laryngol Otol* 2019;**133**:770–4
7 Junaid M, Sood S, Walijee H, Dorgham J, De S. Pain scores and recovery post tonsillectomy: intracapsular versus extracapsular coblation. *J Laryngol Otol* 2019;**133**:775–81
8 Wiltshire D, Cronin M, Lintern N, Fraser-Kirk K, Anderson S, Barr R *et al.* The debate continues: a prospective, randomised, single-blind study comparing Coblation and bipolar tonsillectomy techniques. *J Laryngol Otol* 2018;**132**:240–5
9 Guest JF, Rana K, Hopkins C. Cost-effectiveness of Coblation compared with cold steel tonsillectomies in the UK. *J Laryngol Otol* 2018;**132**:1119–27
10 Cayir S, Hizli O, Gul M. Does surgical treatment of nasal airway obstruction improve sexual functions? *J Laryngol Otol* 2019;**133**:805–9

© JLO (1984) Limited, 2019

https://doi.org/10.1017/S0022215119001889 Published online by Cambridge University Press