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## Introduction

### Acoustic neuromas

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Acoustic neuromas (vestibular schwannomas) remain among the most technically challenging of tumors to remove at the cranial base. Over the last 20 years, however, significant advances in skull base microsurgical techniques and intraoperative neuromonitoring have made the possibility of facial nerve and hearing preservation a reality. Better understanding of the natural history, as well as the advent of stereotactic radiosurgery, has increased the number of options and strategic paradigms in the management of these tumors. In the last decade, technological advancements and an emphasis on functional outcomes have raised the bar for acoustic neuroma surgeons with the goal of achieving the best cranial nerve outcomes, oncological control, and posttreatment quality of life for our patients.

In this issue of *Neurosurgical Focus*, we have compiled a broad spectrum of articles dedicated to the subject of acoustic neuromas describing the natural history, conservative management, radiosurgical treatment, resection and postoperative outcomes, and postoperative neuroimaging of these lesions. Contributions from Kondziolka et al., Schmidt et al., Hoa et al., and Thakur et al. review the management of newly diagnosed, small incidental acoustic neuromas and discuss the natural history and treatment dilemmas that are encountered by the acoustic neuroma surgeon.

The next articles focus on functional outcomes after acoustic neuroma treatment. Yashar et al. and Thakur et al. discuss postoperative outcomes after resection of cystic acoustic neuromas. Sonig et al. examine the socioeco-

nomonic impact of acoustic neuroma surgery in the United States with respect to discharge disposition and hospital costs. Sun et al. and Gurgel et al. discuss facial nerve outcomes and the neuroanatomical correlation of the House-Brackmann grading system. Ansari et al. provide a systematic review of the postoperative complications associated with each surgical approach.

To achieve the best cranial nerve outcomes after surgery, the acoustic neuroma surgeon should be equipped with the fundamental knowledge and techniques of intraoperative neuromonitoring. Kircher and Kartush, and Oh et al. present comprehensive overviews of intraoperative neuromonitoring techniques and discuss the pitfalls that can be encountered during surgery.

The last section of this issue is devoted to aspects of surgical technique and operative nuances. Chamoun et al., Kulwin and Cohen-Gadol, and Nিকেle et al. present online video manuscripts on the surgical approaches for acoustic neuromas (retrosigmoid, middle fossa, and translabyrinthine) that serve as useful and practical surgical video atlases. The authors share their operative pearls for successful surgery and include details of patient positioning, surgical incision and opening, tumor dissection and removal, and closure techniques. DeMonte and Gidley review their experience with the middle fossa approach for intracanalicular tumors with excellent hearing preservation rates. In addition, Liu et al. introduce a novel fascial sling technique for dural reconstruction after translabyrinthine approaches to minimize postoperative cerebrospinal fluid leak rates. Lastly, Ginat and Martuza provide an excellent comprehensive review of the interpretation of postoperative neuroimaging after resection of acoustic neuromas.

This edition of *Neurosurgical Focus* covers a wide range of topics that will be of very practical importance to neurosurgeons and neurootologists who treat acoustic neuromas. It is our hope that this collection of papers will provide our readership a better understanding of acoustic neuromas and stimulate new avenues of research. We thank all of the authors who have contributed to this issue and the editorial staff at *Neurosurgical Focus* for their efforts in putting together this exciting issue.

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#### Disclosure

The authors report no conflict of interest.

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