Skull base meningiomas

William T. Couldwell, M.D., Ph.D.,1 Roberto Heros, M.D.,2 and Vinko Dolenc, M.D.3

1Department of Neurosurgery, University of Utah, Salt Lake City, Utah; 2Department of Neurological Surgery, University of Miami, Miller School of Medicine, Miami, Florida; and 3Department of Neurosurgery, University Medical Centre Ljubljana, Ljubljana, Slovenia

Skull base meningiomas represent some of the most complex problems facing neurosurgeons. Often indolent in their presentation with minimal symptoms, they may be formidable lesions to remove, with a correspondingly high morbidity rate due to vascular or nerve compromise.

In this issue of Neurosurgical Focus, we have compiled a series of papers covering many facets of the surgical management and evolving medical management of skull base meningiomas. Topics include radiological evaluation of characteristic sinus changes adjacent to skull base meningiomas (Gibbons et al.), and the novel use of protoporphyrin to detect resection limits and margins in meningioma surgery (Roberts et al.). There are several papers that provide timely reviews of the state of the art in techniques and the limitations of endoscopic resection of anterior skull base and parasellar meningiomas (Liu et al., Van Gompel et al., and Couldwell et al.). Important selection case criteria are discussed by the authors for the use of these approaches. The authors of additional papers on surgical technique discuss the graded level of craniofacial approaches (Baskaya et al.), management of meningioma within the optic canal (Al-Mefty et al.), posterior fossa meningiomas (Roche et al.), and management and outcome of aggressive hemangiopericytomas (Schirmer et al.).

Finally, the issue includes 2 wonderful overviews of our current understanding of molecular genetics (Pham et al. and Yang et al.), which identify several potential avenues of targeted therapy for those meningiomas that defy surgical cure. In this regard, Shulz et al. provide a current overview of their interesting experience with somatostatin analog for unresected meningiomas. Postoperative hydrocephalus occurs following some cases of meningioma resection, and the risk factors for this occurrence are reviewed in a large series of patients presented by Burkhardt.

Taken together, the issue covers a wide range of topics that will be of very practical importance to any neurosurgeon (and other clinicians) who provide treatment for these challenging patients. We thank all the authors and Neurosurgical Focus administrative staff for helping put together this comprehensive issue. (DOI: 10.3171/2011.3.FOCUS1185)