INTRODUCTION

Craniopharyngioma: current and emerging treatment modalities

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FEW subjects in neurosurgery inspire more controversy than the management of craniopharyngiomas. The benign histology of these tumors is often in marked contrast to their malignant clinical course. The locations of craniopharyngiomas with their intimate association with the visual pathways, hypothalamus, and limbic system predispose patients to severe visual, endocrine, and cognitive deficits, both at presentation and as a result of treatment.

Over the years, both transsphenoidal and transcranial approaches have been applied, and while gross-total resection has been shown to reduce recurrence rates, the morbidity rate associated with aggressive surgery can be quite high, particularly in the pediatric population. The evolution of computer-guided stereotactic techniques drove the application of nonsurgical treatments such as radiotherapy and intracystic chemotherapy, which have been shown to be efficacious and useful for avoiding surgical morbidity. The more recent introduction of extended endonasal endoscopic skull base approaches has had a further impact on craniopharyngioma surgery. In the last few years, molecular sequencing has demonstrated specific mutations asso-

ciated with different craniopharyngioma subtypes, which has raised the possibility of targeted therapy.

Given the shifting landscape of our treatment options for this complex disease, *Neurosurgical Focus* has dedicated this issue to craniopharyngiomas. The first articles provide an overview of the molecular biology of these tumors and their recently discovered mutations. The next set of articles provides new data on the debate over whether the endonasal endoscopic approach confers any benefit over the transcranial approach and in which circumstances one may opt for one over the other. Additional articles on hypothalamic injury, radiation therapy, and risk factors for the pediatric population provide more information for practitioners to help guide their decision making and their counseling of patient with this complex and fascinating disease.

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Disclosures

The authors report no conflict of interest.