Response

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We would like to thank Dr. Oldfield for his thoughtful review and critique of our paper. Dr. Oldfield has astutely described some of the clinical controversies surrounding craniopharyngioma management. The ideal surgical treatment of craniopharyngiomas remains a significant challenge for neurosurgeons. In the literature, reported case series attracting attention for their radical resection rates also report permanent diabetes insipidus in 98.7%, as well as a 16.7% perioperative mortality rate.⁷ Other authors have advocated a somewhat less-aggressive surgical approach and described good disease control rates after postoperative radiotherapy with fewer perioperative complications.⁴

We agree with Dr. Oldfield that the endoscopic approach should not be described as less invasive when compared with the microscopic approach. However, having had previous experience with open transcranial, microscopic transnasal, as well as endoscopic transnasal approaches, we posit that the endoscopic approach provides superior visualization of the tumor and surrounding neurovascular structures. We believe several aspects of the endoscopic approach add additional advantages. First, we take special care to preserve the middle and inferior turbinates bilaterally with no disruption of the anterior nasal septum. Also, we create a small posterior septectomy that improves surgical access and facilitates dissection by allowing entrance via the contralateral naris, thus allowing 2 surgeons to work simultaneously and expanding the angular range of the endoscope. Finally, at the conclusion of the procedure, we medialize the middle turbinates. We believe this technique allows for improved drainage from the middle meatus, closes the posterior nasal septal perforation, and protects future inadvertent insertion of nasogastric or nasotracheal tubes into the cranial vault.

In our case series of consecutive patients, the surgical goal was excision of as much of the tumor as possible without incurring serious endocrinological, neurological, or neuropsychological complications. Even with

attempted hormone replacement therapy, many previous studies have demonstrated an association between premature death and hypopituitarism.^{1–3,5,6} In a large prospective study, Tomlinson et al.⁶ described a median survival of 11.3 years in men and 10.1 years in women after diagnosis of hypopituitarism. Furthermore, patients with craniopharyngiomas in this study had mortality rates that were nearly 10-fold greater than with other underlying diagnoses; the causes of death (respiratory and cardiovascular) were not different from the overall study population. While long-term follow-up will ultimately be required to adjudicate our results, we believe a purely endoscopic technique provides a viable option for the management of select craniopharyngiomas. (DOI: 10.3171/2010.3.FOCUS1069)

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