Expanded endoscopic endonasal transcribriform approach for resection of anterior skull base olfactory schwannoma

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Anterior skull base (ASB) schwannomas are extremely rare and can often mimic other pathologies involving the ASB such as olfactory groove meningiomas, hemangiopericytomas, esthesioneuroblastomas, and other malignant ASB tumors. The mainstay of treatment for these lesions is gross-total resection. Traditionally, resection for tumors in this location is performed through a bifrontal transtubal approach that can involve some degree of brain retraction or manipulation for tumor exposure. With the recent advances in endoscopic skull base surgery, various ASB tumors can be resected successfully using an expanded endoscopic endonasal transcribriform approach through a “keyhole craniectomy” in the ventral skull base. This approach represents the most direct route to the anterior cranial base without any brain retraction. Tumor involving the paranasal sinuses, medial orbits, and cribriform plate can be readily resected. In this video atlas report, the authors demonstrate their step-by-step techniques for resection of an ASB olfactory schwannoma using a purely endoscopic endonasal transcribriform approach. They describe and illustrate the operative nuances and surgical pearls to safely and efficiently perform the approach, tumor resection, and multi-layered reconstruction of the cranial base defect.

The video can be found here: [http://youtu.be/NLtOGfkWC6U](http://youtu.be/NLtOGfkWC6U).

Key Words • endonasal transcribriform approach • anterior skull base • olfactory schwannoma • video