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Video 51.1 This video shows an endoscopic endonasal approach to a trigeminal schwannoma. The patient presented with numbness on the right side of his face. Investigation revealed a large, heterogeneously enhancing mass centered on Meckel's cave. Careful analysis of the images showed the mass to protrude into the lateral recesses of the sphenoid sinus, anterior to the internal carotid artery, favoring an endoscopic endonasal approach. A transpterygoid approach, using the vidian canal to locate the anterior genu of the carotid artery was performed. Using a microdoppler probe to identify the ICA and neuro-stimulation to avoid any motor fibers of V3, we opened the dura and carefully resected the tumor. Postoperative images showed a complete resection of the lesion. After 6 months, sensation on the patient's face had returned to normal.

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Video 57.1 Transnasal endoscopic nasopharyngectomy for a squamous cell carcinoma.

Video 69.1 This video demonstrates an endoscopic endonasal approach to patient with a chordoma, whom had had previous surgeries and proton beam therapy. Knowing that the Internal Carotid Artery was involved by tumor, the approach was done carefully, using neuronavigation guidance and microdoppler probe to identify the ICA. Despite the precautions taken, when removing tumor from behind the ICA using a blunt ball probe, the ICA ruptured and large-volume, brisk bleeding is seen. The bleeding is controlled in the OR using a muscle patch and tamponade and the patient is immediately taken to the angio-suite. Stenting the artery was not possible and the ICA had to be occluded. Fortunately, this patient had good contralateral flow and did not have an ischemic insult nor required bypass.