Endoscopic transpterygoid approach to the skull base lesions

Sang-Chul Lim, M.D.

Chonnam National University Medical School, Korea

Endoscopic transpterygoid approaches have recently provided new corridors to access a variety of pathologies in the paramedian and lateral skull base. An endoscopic transpterygoid approach was first described to access the lateral recess of the sphenoid sinus and was subsequently modified and expanded to manage lesions of the petrous apex, middle cranial fossa, and infratemporal fossa. Common pathologies in the paramedian skull base lesions include schwannoma, chondrosarcoma, CSF leak, meningoencephalocele, meningioma, and various malignancies including nasopharyngeal carcinoma and adenoid cystic carcinoma. Understanding the complex anatomical relationships of the skull base including the pterygopalatine fossa and infratemporal fossa from the endoscopic perspective is mandatory before attempting an endoscopic transpterygoid approach. Endoscopic removal of the skull base lesions with transptery-

goid approach require a large mid-meatal nasosphenoid window, a medial maxillectomy or even an endoscopic Denker's approach to expose the entire posterior wall of the antrum. After the posterior wall of the maxillary sinus is removed, the pterygopalatine fossa is open. The soft tissues of the pterygopalatine fossa are mobilized laterally, exposing the vidian canal, vidian nerve and the foramen rotundum and V2 over the anterior and superior aspect of the pterygoid process. Proper identification and preservation of these landmarks are followed by the opening of the lateral recess of the sphenoid sinus and drilling of the base of the pterygoid process; thus, allowing a direct access to the medial aspect of the infratemporal fossa and middle cranial fossa. Here, the cases from Chonnam national university hospital are presented and treatment outcome is discussed.