Editorial

Pediatric endoscopic skull base surgery (ESBS) has changed the current management of pediatric sinonasal and skull base disorders. We are all well aware, the use of the endoscopic approaches has rapidly expanded over the last 15 years and the technological advances have allowed us really better visualization and have also given us the opportunity to decrease the size and the instrumentation.

Keeping this rapidly expanding subspecialty in mind, we decided to come up with an issue dedicated to pediatric rhinology.

Pediatric ESBS has been established as a safe and feasible technique for a variety of disease states. Special considerations in the pediatric populations include the use of image guidance technology, potential anatomic access limitations, and skull base reconstruction with vascularized flaps to prevent cerebrospinal fluid leak. The indications for endoscopic skull base surgery continue to expand as experience and technology evolve.

The endoscopic approach gives us access not just to the sellar region and areas nearby the sellar region but also really gives us access to the anterior skull base, whether that is through a transplenum approach or a transcribriform approach. We also have access to the frontal sinuses as well as access to the posterior fossa coming through the clivus and all then all the way down to the craniocervical junction.

Skull base defects in pediatric patients typically present with either CSF leaks or fistulas, recurrent episodes of meningitis and rhinorrhea, or meningoencephaloceles with nasal obstruction. While application of the EES to other bony abnormalities has been rare in the past, our results in this domain are encouraging; regardless of etiology, endonasal approaches to the removal of bony structures or necrotizing material compressing the optic nerve or the optic apparatus uniformly resulted in significant improvement. Notwithstanding the once-feared challenge of approaching the pediatric skull base through small nostrils and sinonasal cavities, taking advantage of anatomical pathways to the sella in children as in adults may, in fact, aid in tumor resection/defect repair, simultaneously allowing decreased mucosal detachment and bony dissection, hastening recovery, and minimizing postoperative persistence of symptoms.

The endoscopic skull base surgery has expanded to include a wide variety of clinical entities like juvenile nasopharyngeal angiofibromas, craniopharyngiomas, bony and fibro-osseous lesions, CSF leaks, sinonasal malignancies, benign intracranial hypertension, meningoencephaloceles, etc which can be dealt with the use endoscopes in conjunction with image guided systems.

The introduction of endoscopic endonasal skull base approaches has expanded the horizons of surgical access for pediatric patients and appears to have provided a minimally invasive means for managing lesions with reduced subsequent morbidity. As in many other surgical specialties, however, nascent techniques can gain popularity quickly while expertise in these new techniques is essential to achieve the best results. It is essential that the surgeon be well-versed in conventional skull base approaches as well, to achieve ideal candidate selection and optimize patient treatment.

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