Surgical Approach

A modified Killian incision is made and extended onto the ipsilateral nasal floor. An ipsilateral subperichondrial mucosal flap is elevated and carried to the bony septum, where a subperiosteal plane is established and extended to the face of the sphenoid. The septal cartilage is separated at its bony cartilaginous junctions including the maxillary and pre-maxillary crests and displaced contralaterally while maintaining the integrity of the contralateral subperichondrial plane. A contralateral subperiosteal flap is elevated to the face of the sphenoid.

The majority of the perpendicular plate of the ethmoid as well as a portion of the vomer are then removed. The retractor is then advanced via the ipsilateral naris. In this illustration, its left blade displaces the freed septal cartilage to the patient’s right. The blades of the retractor rest on the face of the sphenoid without entering the sphenoid sinus to avoid injury to the optic nerves. The midline is gauged by the presence of the remaining posterior aspect of the vomer on the anterior wall of the sphenoid. The rostrum is removed under direct vision; the sphenoid mucosa is removed as is the sphenoid septum. Resected bone is saved for reconstruction. Portions of the middle and superior turbinates as well as the posterior ethmoids can be removed for greater lateral exposure.

Key Points

The retractor has interchangeable aluminium blades as well as independent blade opening mechanisms, allowing for safe, controlled and optimal exposure in all patients despite inherent anatomic variability.

An endoscope carrier accommodates 4-mm rigid endoscopes; alternatively, the surgeon can elect to use microscopy. Either approach enables the use both of the surgeon’s hands without the need for an assistant. The position of the endoscope holder is adjustable so that the position of the endoscope can be modified to minimize interference with the passage of other surgical instruments into and out of the field.

The forehead rest adds further stabilization if needed to counterbalance the endoscope.