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MIDFACIAL DEGLOVING PROCEDURE

Although this procedure was first described in 1974,^[15] not until 1979 did Conley and Price report its use for removal of tumor in 26 patients.^[16] In 1984, Sacks and coworkers reported a composite experience of 46 patients in whom inverted papilloma was removed with the degloving approach.^[17] Other authors have elaborated on the usefulness of this technique either alone or as part of a craniofacial approach to tumors. The degloving approach has been used in the management of benign and low-grade malignant tumors of the sinonasal tract. Several modifications of the midfacialdegloving procedure for the prevention of vestibular stenosis have been reported. ^[18–20] Jeon and colleagues^[20] described another modification of midfacial degloving that is intended to avoid unnecessary exposure of the healthy (contralateral) side of the midface, as well as vestibular stenosis. The authors describe a procedure involving a gingivobuccal incision across the midline, a septal transfixion incision, a piriform operative incision, and a lateral osteotomy along the frontal process of the maxilla to the nasion.

PATIENT SELECTION

We do not routinely use the midfacial degloving procedure because the exposure seems somewhat limited, particularly in the superior ethmoid and frontoethmoid recess. Meticulous reapproximation of tissues has provided a minimal and quite acceptable facial scar with the lateral rhinotomy procedure. We have therefore restricted use of the degloving procedure to patients with limited tumors in the inferior aspect of the nasal cavity or nasal septum. Other patients who would be selected for this operation are those who may have a propensity for the development of hyperplastic or pigmented scars.

PREOPERATIVE PLANNING

Preoperative planning is similar to that described earlier for lateral rhinotomy.

SURGICAL TECHNIQUE

The operation is performed with the patient under general oral endotracheal anesthesia with a skin preparation of povidone-iodine solution. Tarsorrhaphy sutures are used bilaterally. Cotton pledgets with vasoconstrictive decongestants are placed on the mucosa of the nasal cavity and the area of the columella. Bilateral septocolumellar and intercartilaginous incisions are made, as well as a transfixion incision (Fig. 10-10A to C). Connecting the transfixion and the intercartilaginous incisions helps separate the nasal tip from the nasal dorsum. A gingivobuccal incision is made from one maxillary tubercle to the other (Fig. 10-11). Complete release of the soft tissues in this area is accomplished by incising the tissues around the piriform aperture and nasal floor. To release the nasal tip, the remaining soft tissue attachments to the bone are sharply divided. Retractors are then used to retract the upper lip and gain exposure to the gingivobuccal sulcus. The soft tissues are undermined as high as the orbital rims (Fig. 10-12). Care must be taken to not injure the infraorbital nerve.



Figure 10-10 A, Bilateral septocolumellar and intercartilaginous incisions. B, Transfixion incision. C, The nasal dorsal skin is under-mined.









Medial maxillectomy is carried out as described earlier and the tumor removed. The cavity is packed as described previously. Meticulous suturing of the intercartilaginous and transfixion incisions should be carried out to prevent vestibular stenosis. The tarsorrhaphy sutures are removed at the end of the procedure.

PEARLS

- The use of preoperative CT scanning with contrast enhancement provides very precise information with respect to the volume of tumor, bone destruction, and vascularity.
- MRI may be important to differentiate mucus in the sinonasal tract from tumor.
- The lateral rhinotomy technique provides maximum exposure of the sinonasal tract and nasopharynx.
- Incisions for both lateral rhinotomy and midfacial degloving heal well and are cosmetically acceptable.
- Epiphora may be avoided by opening the lacrimal sac and suturing it to the surrounding soft tissue.

PITFALLS

- Inaccurate planning, execution, or closure of the skin incisions in the lateral rhinotomy technique will lead to an unsightly and unacceptable cosmetic result.
- Injury to the orbit or cranial nerves is possible but can be minimized by precise information from preoperative imaging and meticulous surgical technique.

- CSF rhinorrhea should be treated aggressively to prevent meningitis. Effort should be made to close dural lacerations or to use fascial grafts or a mucosal flap from the septum or middle turbinate secured with fibrin glue and packing at the time of surgery.
- Care should be taken to not lacerate the periorbita to avoid enophthalmos.
- The midfacial degloving procedure may produce narrowing and even stenosis of the vestibule. Proper attention to adequate repositioning and suturing of the nasal structures is fundamental in preventing this complication.

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