

# Contents

**Preface** **xiii**

Daniel G. Becker

**Caudal Septal Deviation** **427**

Jason Haack and Ira D. Papel

The nasal septum is a structure poorly understood and appreciated by the lay public and the nonotolaryngologist—head and neck surgeon alike. Deviation of the caudal portion of the nasal septum may result in nasal obstruction, a crooked nose, and columellar irregularities. The correction of a severely deviated caudal septum is one of the most difficult challenges of the otolaryngologist and facial plastic surgeon. A variety of options are available for correction of mild, to the most severe, deflections. This condition, as with all challenges in medicine, should not be a one size fits all or one surgery fits all situation. The skilled surgeon should understand the multiple options available for surgical correction and tailor fit the procedure to the deformity.

**Classification and Treatment of the Saddle Nose Deformity** **437**

Edmund A. Pribitkin and Waleed H. Ezzat

The saddle nose deformity results from a disruption in the nose's integral support mechanisms. Reconstructive surgeons must not only reestablish facial aesthetic contours but also rebuild the nose's structural framework while preserving or restoring nasal function. The causes and the classification of saddle nose deformities are reviewed, and the preferred techniques of correction and reconstruction are illustrated.

**Septoplasty Complications: Avoidance and Management** **463**

Jason D. Bloom, Seth E. Kaplan, Benjamin S. Bleier, and Stephen A. Goldstein

Nasal obstruction from a deviated septum is one of the more frequent complaints bringing patients into an otolaryngology office. Despite the significant number of septoplasties performed each year, complications after this procedure are relatively uncommon. Most complications result from inadequate surgical planning or poor technique and often can be prevented. Surgeons should discuss these risks with patients before surgery as part of the informed consent process. This article reviews how complications of septoplasty can occur, compromising the functional and aesthetic aspects of a patient's life, and how attention to detail can reduce the risk for these complications. The septoplasty surgeon must be aware of all the possible complications that may arise so as to convey the benefits and risks of surgery effectively to prospective patients.

**Surgical Management of the Septal Perforation**

483

Deborah Watson and Gregory Barkdull

Initial management of a septal perforation involves medical intervention, but there are several surgical options available. Deciding to proceed with a surgical repair is dependent on the etiology of the defect, how the symptoms impact the patient, the extent of damage or impending destruction to the nasal support, and the absence of any active disease process. The literature describes several methods for septal perforation repair; each has its technical challenges because of the tenuous nature of the tissues and limited surgical exposure of the area. This article reviews the diagnostic work-up of septal perforations, the medical management, and the surgical treatment options, with emphasis placed on the open rhinoplasty approach.

**Surgical and Nonsurgical Treatments of the Nasal Valves**

495

Judy Lee, W. Matthew White, and Minas Constantinides

Nasal obstruction is known to be associated with a major decrease in disease-specific quality of life, and nasal valve dysfunction can play a considerable role in nasal airflow obstruction. Diagnosis and treatment of nasal valve dysfunction requires a thorough understanding of normal anatomy and function as well as pathophysiology of common abnormalities to properly treat the exact source of dysfunction. As the pathophysiology of the nasal valves has become better understood, surgery designed to treat its dysfunction has evolved. Here, we explore the progress we have made in treating the nasal valves, and the deficiencies we still face.

**Open Septoplasty: Indications and Treatment**

513

Mohamad Chaaban and Anil R. Shah

Septal deflections have traditionally being addressed by endonasal techniques. Open septoplasty describes using the open rhinoplasty approach to address septal deflections and deficiencies. Accordingly, the authors will highlight the history of open septoplasty, anatomic aspects, diagnosis of septal deflections, and technical nuances in performing open septoplasty. Accordingly, authors will highlight the history of open septoplasty, anatomic aspects, diagnosis of septal deflections, indications and technical nuances in performing open septoplasty.

**Congenital Nasal Pyriform Aperture Stenosis**

521

James R. Tate and Jonathan Sykes

Congenital nasal pyriform aperture stenosis is a rare cause of nasal obstruction in the neonate. This condition is caused by a bony overgrowth of the median nasal process of the maxilla. An appropriate workup includes evaluation for associated anomalies and fine-cut CT. Surgical treatment is indicated in patients with respiratory difficulty or poor weight gain.

- Septoplasty Pearls** 527  
Eric J. Dobratz and Stephen S. Park
- Techniques used for the diagnoses and treatment of septal deformity vary according to indications for the procedure and surgeon preference. Septoplasty is commonly performed to treat septal deformity causing nasal airway obstruction. Various preoperative and intraoperative “pearls” that the authors have found to be helpful in treating septal deformity and nasal airway obstruction are discussed.
- Cosmetic and Functional Effects of Cephalic Malposition of the Lower Lateral Cartilages: A Facial Plastic Surgical Case Study** 539  
Cory C. Yeh and Edwin F. Williams III
- Certain anatomic variations of the lower lateral cartilages can predispose patients to nasal obstruction. One particular orientation is the cephalic malposition of the lower lateral cartilages which often results in both cosmetic and functional nasal effects. This article will discuss the pertinent surgical anatomy, diagnosis, the process to identify patients at risk with cephalic malposition of the lower lateral cartilages, pitfalls, and poor surgical changes that result in external nasal valve collapse. Appropriate diagnosis, prevention, and surgical maneuvers to address this will be discussed.
- Nasal Reconstruction of the Leprosy Nose Using Costal Cartilage** 547  
Anil R. Shah, Daniel Zeitler, and Jeffrey B. Wise
- Leprosy is a chronic granulomatous infection of the skin and peripheral nerves that often leads to gross deformation of the nasal skeleton and subsequent formation of a saddle-nose deformity. Reconstruction of the nose following *Mycobacterium leprae* infection has challenged surgeons for centuries. As a result, a number of different techniques have been attempted with varying outcomes. This article describes the case and surgical treatment of a 37-year old female who presented with a subtotal nasoseptal perforation and saddle-nose deformity secondary to previous infection with leprosy. Reconstruction was achieved via an open septorhinoplasty approach using autologous costal cartilage grafts, yielding a successful postoperative result.
- A Patient Seeking Aesthetic Revision Rhinoplasty and Correction of Nasal Obstruction** 557  
Daniel G. Becker, Jason Bloom, and David Gudis
- Thorough evaluation of a patient presenting with nasal obstruction, including nasal endoscopy and a CT scan when indicated, is recommended to guide proper diagnosis and treatment. The rhinoplasty surgeon should be aware of the differential diagnosis of nasal obstruction and should proceed with thorough evaluation or refer the patient for appropriate complete evaluation.

**Treatment of Nasal Obstruction in the Posttraumatic Nose**

567

Christina L. Corey and Sam P. Most

The sequelae of trauma to the nose include nasal deformity and nasal obstruction that can have a long-term negative impact on patient quality of life. Successful management of posttraumatic nasal obstruction relies on a detailed history, careful analysis, and accurate diagnosis. Dividing the nose into horizontal thirds assists in preoperative analysis as well as surgical treatment. Adequate treatment of posttraumatic nasal obstruction must address deflection of the bony nasal pyramid, septal deformities (especially caudal or dorsal), turbinate hypertrophy, and incompetence of internal and external nasal valves. Treatment must balance the seemingly disparate goals of re-establishing structure, improving contour and esthetics, as well as restoring the nasal airway.

**Treatment of Dorsal Deviation**

579

Richard A. Zoumalan, Michael A. Carron, Bobby A. Tajudeen,  
and Philip J. Miller

The deviated nasal dorsum is a complex problem with a variety of proposed solutions. Straightening the deviated nose should be focused on maximizing cosmetic outcome while preserving or improving nasal function. Deviations can occur in one or a combination of the nasal thirds. A simple approach to treatment is to develop a strategy for each third of the nose. Tailoring maneuvers to alleviate problems in each specific third helps the surgeon deal with deviations in an effective and straightforward manner.

**Index**

587