Isolated Congenital Absence of the Left Lower Lateral Cartilage

Kian Karimi, MD, Robert T. Adelson, MD, Nicholas E. Herrero, MD
University of Florida Department of Otolaryngology – Head and Neck Surgery
Gainesville, Florida 32607
Kian.Karimi@Ent.Ufl.Edu

Abstract

Introduction: Congenital defects of the nasal cartilaginous skeleton are rare, yet clinically relevant, entities that are important to recognize prior to operative repair.

Methods: A 47 year old woman was referred to our institution for lifelong left-sided nasal airway obstruction. On physical examination, a complete absence of the left lower lateral cartilage was suspected.

Hypothesis: Complete congenital absence of the lower lateral cartilage

Results: External approach rhinoplasty confirmed the above hypothesis, and reconstruction was performed with autologous septal cartilage.

Conclusions: Careful history and physical examination is important in preoperative planning of nasal surgery.

Introduction

- History and physical examination are crucial to appropriate pre-operative planning of functional and cosmetic rhinoplasty.
- Externally, special attention is paid to the characteristics of the skin-soft tissue envelope, the nasal bones, middle nasal vault, and the lower lateral cartilages.
- Internally, examination of the septum, the internal and external nasal valves, nasal sidewalls, inferior turbinates and the nasal mucosa.
- Congenital anomalies of the nose can be responsible for nasal airway obstruction and are present in 1/20,000 to 1/40,000 births.

Case Presentation

- 47 year old otherwise healthy Latin American female
- Lifelong left sided nasal airway obstruction
- No prior facial trauma or surgery
- Exam showed mild septal deviation, profound nostril asymmetry, and the absence of any palpable cartilage within left side of the nasal tip (Figure 1)

Surgical Approach and Results

- External rhinoplasty approach
- Isolated complete absence of left lower lateral cartilage identified (Figure 2a)
- Septal cartilage harvested
- Septal extension graft replaced the left medial crus
- Lateral crural strut graft replaced the left lateral crus
- Shield graft to orient and help reconstitute the tip
- Left domal onlay graft to emphasize left tip highlight
- Patient pleased with functional and aesthetic outcome

Conclusions

- Isolated, non-syndromic cases of absent nasal structures is exceedingly rare.
- No previous reports exist of isolated absence of a lower lateral cartilage.
- May occur after fusion of mesenchymal components by 10th week of gestation from vascular accident or pressure phenomenon.
- Despite its rarity, this anomaly reinforces the importance of careful pre-rhinoplasty analysis and familiarity with principles of open structure rhinoplasty.

References