

Case Report

External rhinoplasty in post rhinoscleromatous bulbous Nose

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Abstract

A 22-year-old male presented to outpatient department with the complaint of widened nasal tip. He was a known case of rhinoscleroma diagnosed five years ago and had taken treatment for the same for one year. He has been asymptomatic since then. On clinical examination the patient had widening of the dorsum of the nose with a bulbous nasal tip. Anterior rhinoscopy was within normal limits. Rhinoplasty was done and the patient had an improvement in his cosmetic appearance. This is one of unique cases of rhinoplasty on bulbous tip due to rhinoscleroma.

Key words: Rhinoscleroma; bulbous tip; external rhinoplasty

Introduction

Rhinoscleroma primarily affects nasal cavity but the nasopharynx, larynx, trachea and bronchi can also be affected. CT and MRI scans are useful for diagnosis. Diagnosis of rhinoscleroma is based on histological characteristics and presence of klebsiella rhinoscleromatis on biopsy cultures. In most cases treatment involves prolonged antibiotic therapy and aesthetic surgical reconstruction when necessary¹. Here we present a case of post rhinoscleroma with bulbous nasal tip which was corrected with an external rhinoplasty.

Case report

A 22-year-old male patient presented with chief complaint of widened nose. The patient gave past history of rhinoscleroma 5 years ago. He was treated for the same in a local hospital for about 1 year. On clinical examination, he had widening of the nasal dorsum with a bulbous tip (Figure 1, 3, 5).



Figure-1

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Figure-2



Figure-3

Anterior and posterior rhinoscopy was within normal limits. External rhinoplasty was done under general anaesthesia. Submucosal resection of the septum was done to harvest

cartilage. An inverted V shaped incision was placed at the junction of upper two third and lower one third of the columella and flap elevated exposing the cartilaginous and bony framework of the nose. Excess fibrous tissue on the flap was scraped and sent for histopathological examination. The lateral crus of lower lateral cartilage was trimmed. The septal cartilage was trimmed and placed in between the medial crurae and interdomal suture applied using 2.0 vicryl. Flap was repositioned and sutured using 5.0 silk. The nasal cavity was packed and POP cast was applied externally for one week. Sutures were removed and patient was discharged. Histopathological examination revealed normal fibrous tissue. The patient was asymptomatic during the follow up and was pleased with his cosmetic appearance (Figure 2, 4, 6).

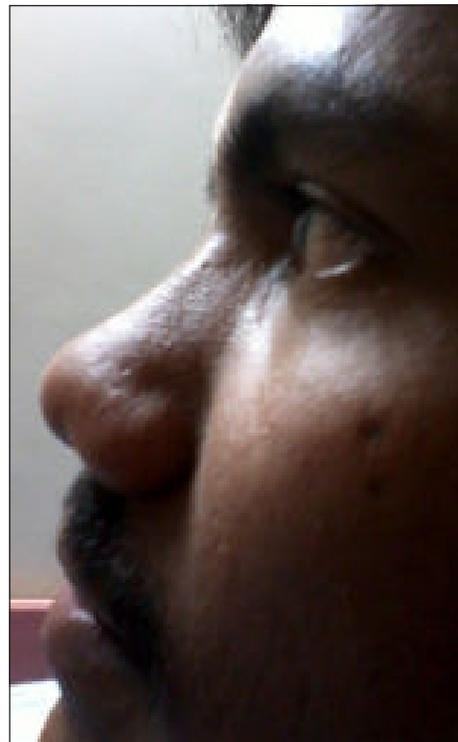


Figure-4

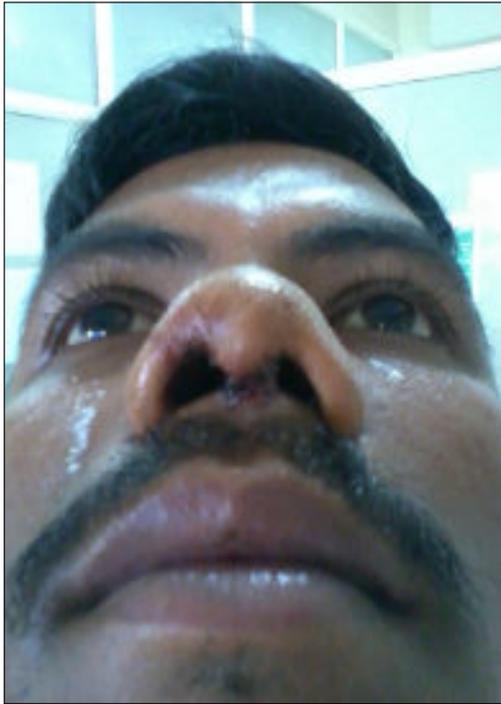


Figure-5



Figure-6

Discussion

Rhinoscleroma, a chronic granulomatous bacterial disease of nasal mucosa that often extends through lower respiratory tract is caused by *Klebsiella rhinoscleromatis*². Abundant formation of fibrous structures in the granulation tissue undoubtedly reflects the protective functioning of the organism. Electromicroscopy provided more evidence for the presence of endobiosis in scleroma with secretion of mucopolysaccharide by the Frisch bacillus³. In this patient the bulbous tip and wide nose was because of excessive fibrous tissue formation secondary to rhinoscleroma. Open tip sutures are considered to be the best method of achieving consistent and reproducible tip changes that can please patients with a wide variety of tip deformities. The described techniques consist of selecting ideal combination of following six sutures: 1. Columellar strut and suture 2. Domal creation 3. Interdomal 4. Domal equalization 5. Tip positioning 6. Lateral crural convexity sutures. If additional definitions are required, then tip refinement grafts may be added to accommodate thicker skin or lateral crura abnormalities⁴. Total resection of alar cartilages including the domes or maintenance of these by preserving adipose tissue with a suture in the middle of the end of crura medialis and covering this with a temporary fascia which usually has two layers depending on the thickness of the tip⁵. In the case after scraping out excessive fibrous tissue partial resection of the lateral crurae was made. The harvested septal cartilage was repositioned as columellar strut by creating a pocket in between the medial crurae and sutured with 2.0 vicryl. Inter domal distance was lessened by placing an interdomal suture. The results were considerably noticeable during the intraoperative period as well as during follow-up.

Conclusion

Suture techniques remodel the shape of the nasal tip by altering the configuration and the relationship between the tip cartilages and the supporting structures; these also preserve the nasal tip anatomy and limit resection. Intraoperatively, the effects are immediately visible, can be adjusted and reversed⁶. This case is unique in terms of post rhinoscleromatous state with excessive of fibrous tissue which was excised, and a novel attempt was made to limit tissue excision by applying tip sutures.

References

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