Alternate sliding technique for repairing a nasal septum perforation

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INTRODUCTION

Some patients with nasal septum perforation suffer from recurrent epistaxis, nasal obstruction, crusting, pain and whitish. Possible etiological factors are aggressive cauterization of the nasal mucosa for epistaxis, external or endonasal trauma, Virgili's granulomas, crocodile skin, organic solvent inhalation, or external interventions perforate secondary to surgical procedures such as septal or deviatory.

Symptomatic septal perforations in patients with surgeries because copious material can be retained and cause obstruction of the nasal airway. The perforation is one of the most difficult challenges in rhinology. A variety of surgical techniques have been developed. We report on a new surgical technique that allows for easy exposition of the perforation, the endonasal approach, the extra nasal technique, and both the endonasal and free flap techniques. Our experience suggests that the endonasal approach is adequate for exposure septal perforation, flap dissection and suturing, because use of an endoscopic apparatus precludes precise manipulation of mucosal flaps. Our technique requires at least partially the remaining septum and is superior to the traditional technique because the flap can be placed in the nasal cavity with a snug fit.

RESULTS

1. A 52-year-old female visited with the complaints of nasal obstruction, recurrent epistaxis and crusting. The perforation was closed using the endonasal sliding technique. The perforation was completely closed after surgery (Fig. 5A, red arrow). Complete closure of all perforations was observed and symptomatic improvement was noted. In the postoperative follow-up period of 18 months, reporforation was not observed (Fig. 4B). The axial view of computed tomography showed no air or fluid around the perforation before surgery (Fig. 3A, red arrow) that resolved completely after the procedure (Fig. 3B).

2. A modified surgical technique, the “alternate sliding technique,” for managing this difficulty is described here. Our technique is applicable for repair of small to medium perforations, and that its use can reduce the risk of reperforation.

SURGICAL TECHNIQUE 1

The procedure is described here. Our alternate sliding technique facilitates a better blood supply than the traditional technique. The procedure begins with a hemostatization incision of the septum mucosa (Fig. 1A). After the anterior end of the quadrant cartilage is exposed (Fig. 1B), the mucoperichondrial flap is elevated bilaterally from the nasal septum (Fig. 1C, D, white arrow heads).

Surgical approach to the nasal septum perforation repair was successful with the first surgery in 10 of the 13 patients. Among them, reperforation was not observed during the postoperative follow-up period of 3 months, and preventing symptoms resolved fully. A patient who had taken corticosteroids for several years, a patient who had multiple perforations and another required the additional small perforation in our clinic. Complete closure of all perforations was observed and symptomatic improvement was noted. However, 3 months after surgery, a small reperforation was observed (Fig. 6C), and a second procedure was required (Fig. 6D).

REFERENCES


CONCLUSIONS

Alternate sliding technique does not require particularly advanced surgical expertise. Any surgeon having adequate experience with endoscopic septoplasty or deviation can perform this operation. We believe that this technique is applicable to the repair of medium perforations, and that its use can reduce the risk of reperforation.