Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2016; 4(5D):1729-1730 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjams.2016.v04i05.057

Original Research Article

A Retrospective Investigation of Postoperative Complications of Nasal Septoplasty

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Abstract: A retrospective evaluation of medical records of nasal septoplasty operation, in 52 cases, at a city charitable hospital, was performed. Surgical outcome was appraised. Complications occurring early in first postoperative week and those manifest at 6 month follow up, were scrutinized. Bleeding and pain were early complications of minor nature. Failed septoplasty was late complication. A conservative approach to surgical procedure appears to hold the key to the endeavour of surgical correction of nasal septum deviation and nasal blockage.
Keywords: Nasal septum deviation; septoplasty, septoplasty complications.

INTRODUCTION

Nasal septoplasty is performed to correct, anatomical septal disorder causing symptoms of nasal airway blockage and is one of the most frequent otorhinolaryngological operation. During the procedure, via a hemitransfixation incision, mucoperichondrium flap is elevated and excess of deviated septal cartilage is excised. The remnant is straightened, using cross hatching and wedge resection. This is followed by mattress sutures and nasal packing for next 24 hours. Complications are uncommon but include haemorrhage, septalhaematoma, perforation, infection, septal abscess, and anosmia and saddle nose [1]. In some difficult cases, shearing or pulling of bone may increase the risk of dangerous skull base, orbital and intracranial traumatic complications. There can be cerebrospinal fluid leak, pneumocephalus, meningitis, subdural haemorrhage, cavernous sinus thrombosis etc[2]. Persisting septum deviation is commonest and perforations and synechiae formation are other delayed complications. It is the lack of elegance in conduct of the procedure and inattention to anatomical knowledge, that really surface in type and severity of complications.

PATIENTS AND METHOD

A retrospective review was undertaken, of the medical records of patients, who underwent conventional nasal septoplasty over 2 year period, between Jan 2014 to Dec 2015 at SRLNM charitable trust hospital Varanasi (North India).The endeavour was approved by local ethical committee with commitment to confidentiality of patient identity. Fifty two cases were included, in whom nasal septoplasty was done for relieving nasal obstruction. Cases undergoing septoplasty for indications, such as recurrent epistaxis, headache (without obstruction), sinusitis, etc, were excluded. Twenty nine were males and 23 were females and the age ranged from 22 years to 55 years (median 30 years).

Every complication occurring during first postoperative week was evaluated. These included any abnormal bleeding, septalhaematoma or abscess, swelling, rhinorrhea, headache, altered mental state and other signs of cranial complications.

Long term complications were evaluated in follow up information available, at 6 months post surgery and also, by interviewing and examining some patients. Presence of anosmia, subjective rating of symptom relief, quality of breathing and pain relief, etc, was noted.

OBSERVATIONS AND RESULTS

Elaborate complication profile in studied cases emerged as depicted in table 1.

Table 1: Complication profile

S. No	Early complications (within 1st postop week)	(n)	Action taken
1.	Acute bleeding inside flap cavity	1	Extra packing
2.	Septalhaematoma (2nd day)	1	Needle aspiration and pack replacement
3.	Epistaxis on pack removal next day	2	
4.	Excess pain (without bleed or infection)	3	Non steroidal analgesics
S. No	**Late complications (at 6 months post op)**	**(n)**	**Action taken**
1.	Numbness in gum around upper incisor teeth	1	
2.	Asymptomatic 6mm wide anterior perforation	2	
3.	Anosmia (continued since before operation)	4	
4.	Persisting deviation (2 cases with obstruction)	15	
5.	Adhesion (Synechiae)	2	division and packing

DISCUSSION

Cases of early postoperative bleeding were managed along the line of epistaxis treatment [3-5]. Flap complications and subperiostealhaematoma were treated by transseptal mattress suture and nasal packing, for a couple of days. Synechiae may develop, partly, due to no use of internal septal splints in the patients. Their low incidence, however, testifies, to worth of proper maneuvering of flap, avoiding injury to surrounding tissue, especially, inferior turbinate and packing. Septal perforation can be consequent to laceration of flaps on both sides with tissue loss. A conservative flap elevation may be safer. Absence of any nervous or intracranial complications points to successful avoidance of bone pulling and use of sharp cutting devices avoiding shearing. Skull base and intracranial injuries may thus be prevented [2].

Resection of deviated osseous crest can damage the nasopalatine nerves, which results in numbness around incisors [6]. Preoperative anosmia suggests abnormality in olfactory mucosa and nerves, rather than due to diminished airflow. Persisting septal deviation was commonest undesirable outcome. It can be ignored if not resulting in obstructive symptoms. It is rare, to fully straighten the septum and attainment of due airway is fundamental goal.

CONCLUSION

Most observed complications of septoplasty can be attributed to flaws of surgical technique and may be largely avoided by conservative surgical approach**.**

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