

Management of Deviated Nasal Septum

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Abstract:

Aim: To observe the management and treatment of deviated nasal septum and to assess whether the symptomatic treatment of patients with deviated nasal septum improved the outcome of the disease or they require surgery for permanent cure and to compare complications of both SMR and septoplasty **Methods:** In our observational study, a total of 25 patients of deviated nasal septum were studied. A Performa was designed to collect data related to the patient's treatment. **Result:** Percentage of male patients was greater as compared to females because of trauma due to accident. In our study 76% causes of DNS were trauma and 24% causes were due to birth injuries. In presenting complaints nasal obstruction was present in 100% cases, while other complaints were variable external deformity in 96%, PND in 16%, nasal discharge in 24% cases while headaches were present in 40% cases. From 25 cases we studied, SMR was performed in 64% cases while septoplasty was performed in 36% because it is an old technique and aged surgeons are expert in SMR only not in septoplasty that's why they preferred to do SMR. SMR is done more often due to lack of technicians of septoplasty and the required instrument Post operative complications of SMR were greater and perforations (76%) and adhesions (20%) are common among all complications. While in septoplasty there are no chances of occurrence of perforations so it is the surgery of choice in DNS patients. **Conclusion:** In general, most patients with symptomatic deviated nasal septum were best treated by septoplasty as compared to SMR because of development of serious after effects of SMR such as perforation, nose bleeds and adhesions Deviated nasal septum may occur again if patient below 17 yrs of age is treated with surgical procedures due to growth of nasal bone and more liability to complications. They required a more developed role of pharmacist in dose management and patient counseling procedures.

Key words: deviated nasal septum, management, septoplasty, sub-mucous resection

INTRODUCTION:

High-birth weight babies, delivered by vaginal route (55%), to a primi mother are more likely to have DNS after birth. Moreover, intrauterine malpositions particularly breech (45%) and prolonged labor seemed to play a role in newborn DNS.^[1]

To find out the causes of complications arising due to nasal septal corrective surgery .Septoplasty was performed in patients below 15 years of age with caudal septal dislocation and adults with minimal deviation confined to cartilagenous septum. Classical sub mucous resection (SMR) was performed in most other cases. A record was maintained in the outpatient Clinic in which the observations and findings of these patients, visiting for follow-up were entered for more than a year. Complications are related to the type of procedure performed. More complications are seen with classical SMR. Adhesions are common complication if intranasal splint is not provided.^[2]

Caudal septal deflection can be a challenging nasal deformity. Although there are a number

of maneuvers available to manage this functional and aesthetic abnormality, each approach is effective in only a limited number of cases. For over 25 years, the senior author (N.J.P.) has employed a "modified swinging door" technique for treatment of the deviated caudal septum. Using this technique, the septal cartilage along the maxillary crest is dissected free but is not excised. Instead, the caudal septum is flipped over the nasal spine, which acts as a "doorstop" and secures the caudal septum in a straighter position. This maneuver may be useful in the armamentarium of the surgeon managing this potentially difficult technical challenge.^[3]

Septal suturing after septoplasty offers the following advantages of elimination of discomfort for the patients, minimal complications, the outcome is almost the same as with nasal packing, and finally the hospital stay is less than with nasal packing. Therefore, suturing of the nasal septum after septoplasty should be a preferred alternative to nasal packing.^[4]

Main objectives of the study were to study

- Predisposing factors associated with deviated nasal septum
- to compare post operative complications of SMR and Septoplasty,
- Management of deviated nasal septum
- To understand the role of pharmacist in management of DNS.

MATERIALS AND METHODS:

The study was conducted to see the management of deviated nasal septum. Case history of 25 patients admitted in Mayo Hospital Lahore from 14th June to 14th July, 2009. were collected and different parameters were observed and entered into a Performa WHICH was designed to collect data related to the patient’s symptoms, diagnosis, treatment plan, drugs given and lifestyle modifications

Inclusion Criteria

Patients with definitive diagnosis of symptomatic DNS
Hospitalized patients Undergoing surgery for treatment.

Exclusion criteria

Patients With definitive diagnosis of asymptomatic DNS
Patients below 17 yrs of age having no serious complaint

RESULTS AND DISCUSSION:

Data of 25 patients of deviated nasal septum undergoing septal surgery was recorded.

Fig 1 showing that out of 25 patients 88% were male and 12% female. Percentage of male patients were greater as compared to females because of trauma due to accidents

Figure 1

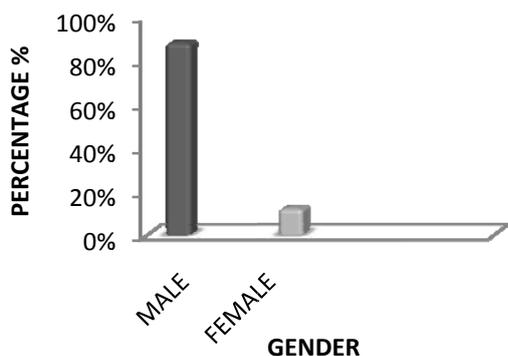


Fig 2 showing DNS was greater in patients age ranging from 16- 30 years because surgeons prefers surgery after years 17yrs of age but in children with serious complications below 17yrs surgery can be performed.

Figure 2

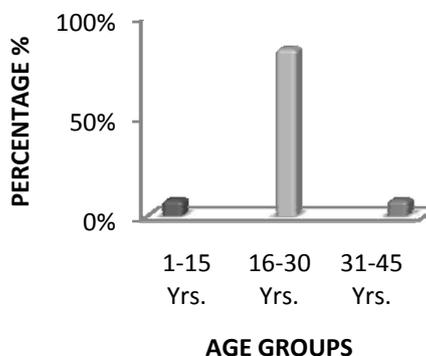


Fig 3 showing 76% causes of DNS were trauma and 24% causes were due to birth injuries

Figure 3

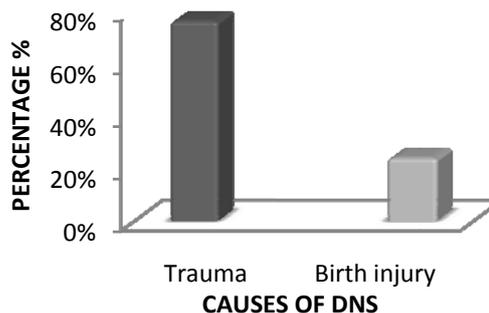


Fig 4 showing presenting complaints nasal obstruction was present in 100% cases, while other complaints were variable external deformity in 96%, PND in 16%, nasal discharge in 24% cases while headaches were present in 40% cases.

Figure 4

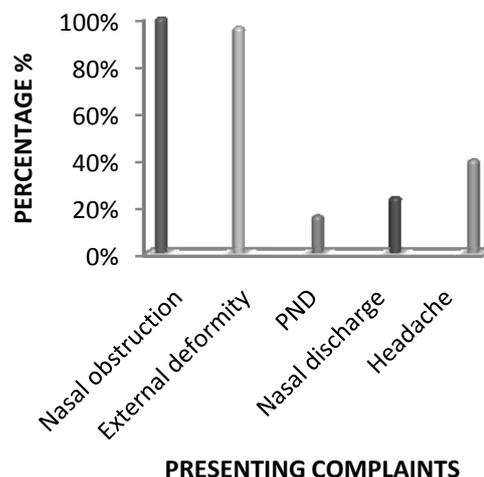


Fig 5 showing SMR was performed in 64% cases while septoplasty was performed in 36% because it is an old technique and aged surgeons were expert in SMR only not in septoplasty that's why they preferred to do SMR. SMR is done more often due to lack technicians of septoplasty and the required instrument

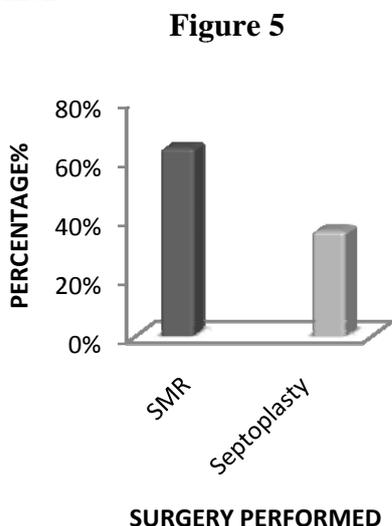


Fig 6 showing Post operative complications of SMR were greater and perforations (76%) and adhesions (20%) are common among all complications. While in septoplasty there are no chances of occurrence of perforations so it is the surgery of choice in DNS patients.

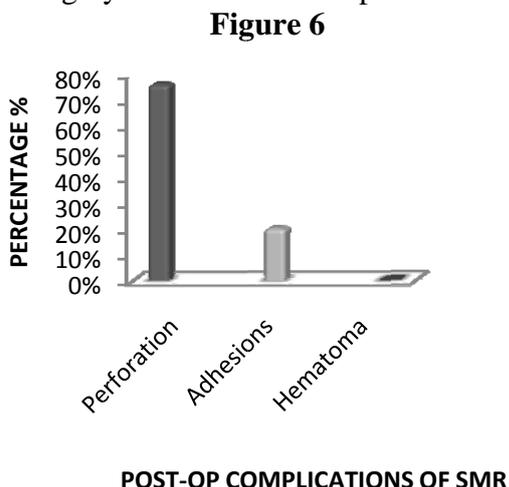


Fig 7 showing Pre operative medications that were used include antibiotics that are prescribed in all cases while decongestants in 84% cases antihistamines in 72% cases depending upon patient symptoms. Cephadrine is a major prescribed drug due to free availability of this medication within the department. Moreover doctors prescribe 1st generation cephalosporin as they cover both

gram +ve n gram -ve organisms. Pre operative medications that are used include cephridine, inj. Dicloran, brufen, tab. CPM etc.

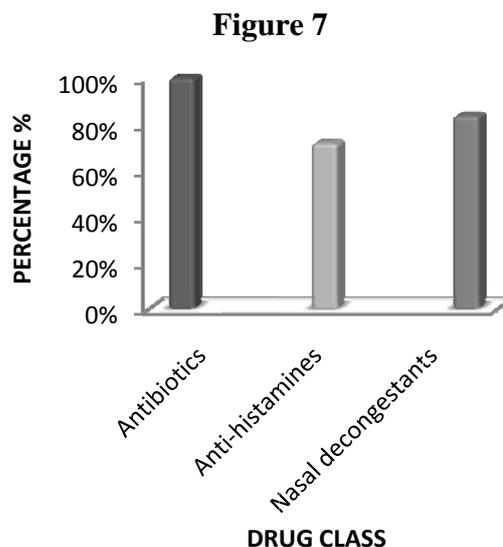
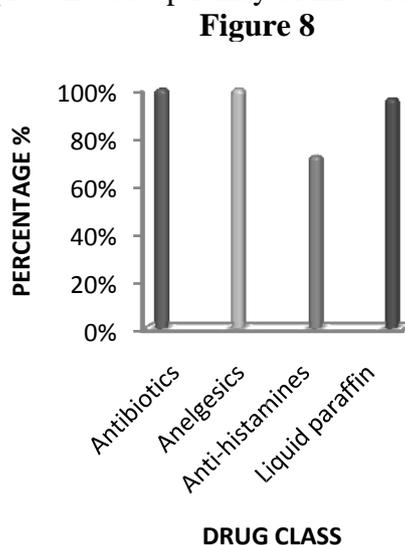


Fig 8 showing Post operative medications antibiotics and analgesics are used in almost every patient to reduce pain, inflammation and to prevent infection. Liquid paraffin is used in patients after removal of nasal packing to keep the nose mucosa moist. Antihistamines are also prescribed. Course of antibiotics are completed even after discharge to prevent susceptibility of infection.



CONCLUSION:

A deviated septum may be present at birth or, more commonly, the result of an injury. Treatment of nasal obstruction may include medications to manage symptoms. But to correct a deviated septum, surgery is necessary. The goal of treatment was to prevent the condition from becoming worse and to prevent it from causing other

complications and to educate reluctant patients about importance of surgery. The level of improvement you can expect with surgery depends on the severity of your deviation. Symptoms due to the deviated septum — such as nosebleeds and nasal obstruction — often completely resolve. However, any accompanying nasal or sinus conditions — such as allergies — can't be cured with surgery. Initial treatment of deviated septum may be directed at managing the symptoms of the condition, such as nasal congestion and postnasal drip. Medications are only a temporary fix, however, and won't correct a deviated septum. People with increase risk of deviated nasal septum are males because of more environmental exposure and trauma. In general, most patients with symptomatic deviated nasal septum are best treated by septoplasty as compared to SMR because of development of serious after effects of SMR such as perforation, nose bleeds and adhesions. Deviated nasal septum may occur again if patient below 17 yrs of age is treated with surgical procedures due to growth of nasal bone and more liability to complications. They required a more developed role of pharmacist in dose management and patient counseling procedures.

RECOMMENDATIONS:

Presence of epistaxis, newly developed external nasal deformity, and the presence of a deviated nasal septum with new symptoms of nasal obstruction were noted. Presence of epistaxis after nasal trauma is associated with a statistically significant increase in external nasal deformity. However, one third of patients without epistaxis following nasal trauma also had external nasal deformity and hence all patients with a swollen nose after injury, irrespective of post-trauma epistaxis, still need to be referred to the fractured nose clinic.^[5]

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discomfort for the patients, minimal complications, the outcome is almost the same as with nasal packing, and finally the hospital stay is less than with nasal packing. Therefore, suturing of the nasal septum after septoplasty should be a preferred alternative to nasal packing.^[7]

Septal deviation is the rule more than the exception in most cases of rhinoplasty. When deviation of the septum precludes a good rhinoplasty's functional and aesthetic results because of impairment of nasal air flow, residual deviation, or inadequate medialization of the lateral nasal wall, a modified sub mucous resection of the deviated part is certainly indicated. If possible, a dorsocaudal L-strut of cartilage should be maintained, but, if necessary, it can be resected partially or totally and the support of this area reestablished by dorsal and columellar cartilage grafts. The authors recommend a bilateral mucoperichondrial-mucoperiosteal dissection of the septum from its caudal edge to the most posterior deviated part, because it provides easy septal resection in a good surgical field.^[8]

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REFERENCES:

- [1]. Collet S, Bertrand B *breach position and dns* Acta Otorhinolaryngol Belg. 2001; 55(4):299-304.
- [2]. Al-Raggad DK, El-Jundi AM, Al-Momani OS, Al-Serhan MM, Nawasrah OO, Qhawi MA, Husban AM. *Complications of nasal septal surgery*. Saudi Med J. 2007 Oct; 28(10):1534-
- [3]. Kim DH, Park HY, Kim HS, Kang SO, Park JS, Han NS, Kim HJ. *deflection*. Arch Otolaryngology Head Neck Surg.
- [4]. Daniel M, Raghavan *septal suturing after septoplasty* Emerg Med J. 2005 Nov; 22(11):778-9.
- [5]. Foda HM. *Prescence of epitaxis in dns*. Plast Reconstr Surg. 2005 Feb; 115(2):406-15.
- [6]. Muhammad IA, Nabil-ur Rahman. *Complications of the surgery for deviated nasal septum*. J Coll Physicians

- Surg Pak. 2003 Oct; 13(10):565-8.PMID: 14588169
- [7]. Vuyk H.A *suturing of the nasal septum after septoplasty*.Rhinology. 2000 Jun; 38(2):72-8.
- [8]. Pastorek NJ, Becker DG.*Treating the caudal septal deflection*..Arch Facial Plast Surg. 2000 Jul-Sep;2(3)