

Comparison of Septoplasty with and without Nasal Packing and Review of Literature

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ABSTRACT

Background: Septal surgery is a procedure that is commonly performed regarding symptomatic deflected nose septum. Pain is much horrid element of septal surgery during removal of packs from nose.

Aim: To compare septal surgery outcomes with & with no post-operative packs in the nose and thus to evaluate requirement of packs in the nose after the septal surgery.

Methods: It was descriptive research conducted in Department of ENT, Avicenna Medical College Hospital, Lahore in which 50 (fifty) respondent aged 18-50 years old with symptomatic deflected nose septum were included.

Results: Among these patients, 25 underwent septal surgery with packing while 25 patients experienced septal surgery with no packing with figure of 8 stitching employed on septum. Among whom septal surgery was performed with no packing had minor bleeding and pain. Septal hematoma was developed postoperatively merely in 1 patient. After three months, all patients were found satisfied. Study concluded that simple deflected nose septum can safely be treated along with septal surgery with no anterior packing of nose and through taking the figure of 8 stitching on nose septum. Also, stitches are helpful to close any unintended trauma to septal mucosa as well as offering further assistance to cartilage parts retain in the septal surgery. Among patients who have enhanced bleeding risk, nasal packing must be reserved.

Conclusion: It is believed that utilization of nasal packing after septal surgery stabilizes remaining septum and avoids complications, for example, bleeding, synechiae formation and septal hematoma. Figure of 8 stitching can successfully serve all above purpose and also decrease hospital stay.

Simple deflected nose septum can safely be treated along with septoplasty with no anterior packing of nose and by taking the figure of 8 stitching on nose septum. There is need to reserve nasal packing just for selected patients.

Keywords: Septal surgery, anterior packing of nose, postoperative packing of nose.

INTRODUCTION

Septal surgery is commonly utilized procedure regarding symptomatic DNS. Pain, discomfort and postoperative nasal packing (PNA) are the most horrid part of this surgical procedure during nasal pack removal. The major aim of the nasal packing is to avoid septal hematoma and postoperative hemorrhage. Also, it is believed to minimize recurrence or persistence of the septal deviation and to stabilize remaining cartilaginous septum¹. However, prior studies included small sample size and remained unable to assist outcomes & conclusion.

Drawbacks of ANP are breathing from nose, mouth dryness, narrowing of nasal valve, nasal pain, crusting, vestibulitis, headache, synechiae, watering from the eyes, throat irritation, ear blocking, difficulty in ingestion, hypoxemia, hypoxia, and secondary infectivity^{2,3}. In addition, it enhances hospital stay.

Other than these, acute pain is faced by patients during the removal of pack. Though, patients face this discomfort just for a while but remember this painful moment significantly. Hence, it was recommended that if probable, packs in the nose must be evaded while the figure of 8 stitching could be taken so as to avoid problems.

Current research was conducted to compare the outcomes of septal surgery with & with no post-operative packing of nose and thus to evaluate the requirement of packing of nose after septal surgery.

Packing of nose history after surgical procedure of nose falls behind to 1847 in Gustav Killian era from Germany while Otto Tiger Freer from America, so far systematic SMR as well as packing of nose was initiated during 1882 by Peterson in the Germany and Ephraim in the USA⁴. Nasal packaging numerous types have been utilized such as band measure soaked in the BIPP, antibiotic ointments, fluid paraffin and many others. Several agents such as merocel (polyvinyl acetate sponge), bioresorbable dressing (nasopore) and balloon tamponade numerous tools are obtainable as well.

Researches carried out by El-Silimy and Laing, MR & Clark demonstrate that packing of nose following septal surgery utilize the complete force to flutters of septum and arteries situated in septum of nose and hence, avoids hematoma formation & bleeding after surgery, however, it was not supported by researches carried out among large sample size⁵.

A study carried out by Von Schoenberg and coworkers in which 95 patients experienced normal nasal surgical procedure demonstrated that pain was considerably more among patients who were packed after operation and packaging removal confirmed to be very

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painful incident during postoperative phase. Study showed an elevated complication rate (comprising hemorrhage, septal perforation and vestibulitis) among patients with packed group. However, it is unclear if this dissimilarity was statistical significant⁵.

Several other researches indicated that skeptical surgical treatment with no nasal packing is safe. Bajaj and teammates conducted a study among 78 patients who experienced septoplasty without postoperative packing while figure of 8 stitching were utilized in only more than a quarter cases. Study demonstrated a 7.7% postoperative hemorrhage rate and 3.8% needed fillers for the control of hemorrhage⁶.

Some reviews recommend there is no need of nasal packing after the nasal septal surgery because it leads to uneasiness when being removed^{5,7,8}. Swathing fills with the gelfoam⁹, jamming nasal ganglion¹⁰, utilizing relevant anesthesia to eliminate¹¹, to keep fill for small duration¹² are a few techniques recommended for pain reduction.

Also, numerous suturing methods have been reported for the approximation of flaps of mucosa flaps after the septal surgical procedure^{13,15} so as to decrease frequency of complications. To keep flaps jointly, several surgeons utilize interrupted stitches utilizing absorbable stitch materials. During 1984, Sessions 1 described constant stitch quilting, utilizing 4.0 simple catgut on minute cutting needle for approximation of flaps of mucosa. An identical method utilizing a bent needle has been reported by Vukovic & Lee¹⁴. In addition, these methods assist to seal any mucosal trauma as well as help residual cartilage.

METHODOLOGY

It was comparative research conducted at ENT Department of Avicenna Medical College Hospital, Lahore from June 2014 - June 2016. During study 50 (fifty) patients of both genders aged between 18-50 years old with symptomatic deflected nose septum who experienced septal surgery were included. Study exclusion criteria were patients having medical complications (for example blood dyscrasia, cardiac problems, diabetes and hypertension), history of nasal sniffers, nasal polyposis, overt nasal allergy, drug abuse, using hemodiluting medications such as aspirin and history of previous nasal turbinate and septoplasty.

Participants were selected for either nasal packing or quilting randomly and were separated in 2 groups. Informed written approval was obtained. Both cavities in the nose were filled before surgery with band gauze soaked in 4% xylocaine. Nose of patient was made ready with a relevant decongestant plus 2% lignocaine with adrenaline permeation ratio 1:1,00,000. Also Hemitransfixion or Killian cuts were utilized according to preference of surgeon or requirement of particular case. For all cases surgical procedure was performed by consultants.

Twenty five patients who experienced septal surgery with filling were designated as Group A. For these patients antibiotic ointment soaked band gauze was utilized for filling. After 48 hours fill was taken away.

Twenty five participants who experienced septal surgery without filling were designated as Group B. The figure of 8 stitching was sited through septum to keep flaps

collectively and for hematoma creation avoidance. A 3/0 vicryl on bent cutting needle was utilized. A little bent needle is straightened up till a little arc remains at tip. At suture end, a knot is prepared to pass the needle via septum from a hollow space to the other starting from frontal end of the middle nasal turbinate to cavity in which knot was joined.

Saline irrigation of nose as well as use of antibiotic ointment and topical nasal decongestant was recommended for two weeks. Antihistamine and oral antibiotic were advised for ten days. Patients were advised at two, four and twelve weeks follow up postoperatively.

RESULTS

Among participants, 41 (82.0%) were males and only 9 (18.0%) were females. Among Group-A patients, obstruction of nose, pain, breathing from nose, discomfort, sleeping problem and snoring were leading problems described by patients.

In Group-B, 2 patients had little bleeding after surgery that was controlled through ice application and local heamocoagulant. Pain was observed more among Group-A patients when compared with Group-B patients according to VAS (Visual Analog Scale).

Severe pain was experienced by all patients during removal of pack among packing group patients. All patients were found satisfied with surgery after 3 months at post-operative follow up.

DISCUSSION

Study revealed that major proportion of patients was 18 to 31 years old. In Group-A, mean age patients was 13.52 years while it was 13.34 years among Group-B patients. Among all patients, nasal obstruction was the chief complaint and the next frequent complaint was nasal discharge followed by sneezing and headache.

From Group-B, two patients were found having little bleeding after surgery which was due to effects of wearing off of adrenaline. Results of this study demonstrated an important difference in both groups; discomfort and feeling about pain mostly during pack removal.

The findings of this study are comparable with a study carried out by Bajaj and colleagues who reported that Septal surgery can safely be performed with no postoperative nasal packing¹².

Another study undertaken by Naghibzadeh indicated that morbidities and complications rate between both groups were similar while dissimilarities were found not significant, except discomfort and pain after surgery as well as at pack removal time¹⁶.

After septoplasty, stitching the septum has benefit of reducing the uneasiness for the patients, has minor problems as well as health facility stay below the group with packing of nose¹⁷.

Comparison of suturing the septum and nasal packs among rabbits did not demonstrate any dissimilarity in the nasal septum histological appearance. [18] A study conducted among fifty subjects comparing the suturing and nasal packing did not show an important difference in the postoperative adhesions, hemorrhage, crusting and mucosal atrophy¹⁹.

A study was conducted among 169 patients to compare septal suturing with nasal packing after septoplasty found that stitching must be the preferred option to the packing of nose.^[20] One more study carried out among 266 septal surgeries without packs and with septal stitching showed good outcomes among patients without complications and discomfort²¹.

CONCLUSION

It is believed that utilization of nasal packing after septal surgery stabilizes remaining septum and avoids complications, for example, bleeding, synechia formation and septal hematoma. Figure of 8 stitching can successfully serve all above purpose and also decrease hospital stay.

Simple deflected nose septum can safely be treated along with septoplasty with no anterior packing of nose and by taking the figure of 8 stitching on nose septum. There is need to reserve nasal packing just for selected patients.

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