Original Article

ROUTINE NASAL PACKING FOLLOWING SEPTOPLASTY IS IT NECESSARY?

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ABSTRACT:

OBJECTIVE: To evaluate and assess the need of routine anterior nasal packing after septoplasty.

INTRODUCTION: Septoplasty for the symptomatic deflected nasal septum (DNS) is the commonest nasal operation performed all over the world.
The most disliked part of the whole procedure on the part of the patient is post operative removal of nasal packing which is usually done after 24 – 48 hours. Some of the patients having symptomatic deflected nasal septum do not get operated or they delay their operation just because of fear of nasal packing removal. Many a times there is no bleeding at all at the end of operation but we still perform nasal packing because of danger of reactionary or primary bleeding. A variety of materials are being used for nasal packing, most of which are not evidence based.

STUDY DESIGN: Descriptive non-interventional study.

PLACE AND DURATION OF STUDY: This study was conducted in the department of ENT and Head & Neck Surgery at Allied Hospital Faisalabad over a period of 03 years from December 2010 to November 2013.

PATIENTS AND METHODS: A total of 100 patients having symptomatic deflected nasal septum were included in this study. All patients underwent septoplasty with quilting sutures taken on the septum under local anesthesia*. All data was analysed and computed by SPSS software, version 10. Chi square test was used to analyse the data. P values < 0.05 were considered statistically significant.*

RESULTS: 83 patients (83%) had no problem and so nasal packing was not done in these patients. On the other hand 17 patients (17%) needed nasal packing. Anterior nasal packing was performed in 09 patients (09%) at the end of procedure because of heavy bleeding during operation. 06 patients (06%) reported back within 24 hours due to reactionary bleeding and another 02 patients (02%) presented with septal hematoma in which we had to perform anterior nasal packing after drainage. All patients were satisfied at the end of 03 months.

CONCLUSION: Routine use of nasal packing after septoplasty is not justified. Symptomatic deflected nasal septum can be safely treated with septoplasty without anterior nasal packing and by taking quilting sutures on the septum.

KEY WORDS: Anterior Nasal Packing, Septoplasty, Reactionary Bleeding,Septal Hematoma.

INTRODUCTION:

Septoplasty is routinely performed for symptomatic deflected nasal septum (DNS). The most unpleasant part of this procedure is

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the postoperative nasal packing and the pain and discomfort experienced by the patient when it is removed usually after 24 to 48 hours. The purpose of this nasal packing is to prevent postoperative bleeding and septal hematoma. It is also thought to stabilize the remaining cartilaginous septum and minimize persistence or recurrence of septal deviation.[1] The disadvantages of anterior nasal packing are excessive dryness of mouth, unpleasant smell around the patient, loss of smell, increased incidence of respiratory tract infection, watering from eyes, ear blockage, irritation of throat, difficulty in swallowing, hypoxia, hypoxemia and secondary infection.[2] It also increases hospital stay. History of nasal packing after septal surgery falls back to 1847 in the time of Gustay Killian of Germany and Otto Tiger Freer of USA. The systematic SMR and nasal packing was started in 1882 by Ephraim in Chicago and Peterson in Germany.[3] Almost all deformities of the nasal septum are caused by developmental disturbances, trauma, impaired growth after trauma or systemic diseases.[4] different types of nasal packings are used all over the world such as Bismuth Iodoform Paraffin Paste (BIPP), gels, Vaseline gauze, merocel and many more to control bleeding and to prevent hematoma and adhesions. Control of bleeding is accepted to some extent but other indications of nasal packing are highly debatable.[5] There is a great controversy in using intranasal packing after septal surgery because of many complications associated with nasal packing such as discomfort, apprehension, trauma to the nasal mucosa leading to increased risk of adhesion formation. There are results with 98% success with no bleeding without nasal packing. Moreover other risks associated with unpacked nasal cavities after septal surgery are also negligible provided the procedure is performed with an extra care to avoid nasal trauma and rough handling of adjacent soft tissues in the nose especially turbinate and flap tears.[6]

PATIENTS AND METHODS:

This study comprised of 100 patients of symptomatic DNS who underwent septoplasty under local anesthesia. The study was carried out in the department of ENT and head and neck surgery allied hospital Faisalabad over a period of three years from December 2010 to November 2013. The patients having obvious symptomatic DNS belonging to either sex ranging from 11 to 40 years of age were included in the study. The patients with minor symptoms of nasal obstruction, nasal allergy, having age below 11 years, with disturbed bleeding profile, hypertensive patients and patients unwilling for local anesthesia were excluded from the study.

All the data was analysed and computed by SPSS software, version 10. Chi square test was applied to analyse the data. P values < 0.05 were considered statistically significant. All the patients were admitted in the ENT department. Detailed history was taken, physical examination was performed and laboratory investigations were done to know the baseline status of every patient and to rule out any contraindication for surgery. After written consent, every patient was taken into confidence about the surgical procedure and reassured about the safety of the operation and local anesthesia. About 10 to 15 minutes before operation I/V line was maintained and I/V fluid started. Then the patient was given one intramuscular injection of diclofenac sodium. The nose of the patient was sprayed with 4% xylocain solution and packed with ribbon gauze soaked in 4% xylocain solution with adrenaline. Ribbon packs were removed after 10 to 15 minutes and 2% xylocain with 1:1000 adrenaline injected at different points on both sides of the nasal septum to ensure 100% local anesthesia. The dose of the xylocain was adjusted according to the weight of the patient not exceeding more than 1 mg/kg body weight.

The operation started after about 5 minutes of xylocain injection and completed in time range of 15 to 25 minutes. During the operation the patient was monitored with a pulse oximeter. At the end of the procedure both flaps approximated and quilting sutures were applied on the septum, a cotton wick soaked in xynosine placed in both nasal cavities for 30 minutes and the patient asked to pinch his nose while sitting under observation for the said time. After 30

minutes the cotton was removed and the nose examined carefully to note any active bleeding and injury to adjacent structures which might have been overlooked during the procedure. Once 100% ensured that there was no bleeding from the nose, the patient was shifted to the ward for postoperative care for further 4 to 6 hours. Later on the patient was discharged with strict instruction to contact immediately in case of bleeding starts or there is feeling of fullness in the nasal cavity. All the patients were given simple oral antibiotics, analgesics, local and oral decongestant only for a week or so. All the patients were examined thoroughly on day 1, 5 and 15 postoperatively. They were also followed up till 03 months.

RESULTS:

Out of 100 patients of the study, 62 patients (62%) were males and 38 patients (38%) were females (Fig.1). The youngest patient was 11 years of age while oldest one was 40 years of age and the mean age was 24.09 years(Table 1). 09 patients (09%) were given anterior nasal packing with BIPP pack for 24 to 48 hours postoperatively because of excessive bleeding during the procedure (primary hemorrhge). Additional 06 patients (06%) reported back with reactionary bleeding within first 24 hours after the operation that were also packed with BIPP pack. Two patients (02%) were found to have septal hematoma on the first day after the operation which were packed after drainage(Fig.2). 83 patients (83%) had no problem at all and did not require nasal packing and so sent home without nasal packing after septoplasty while we had to perform anterior nasal packing in 17% patients (Fig.3).

DISCUSSION:

History of unconventional and different types of septal surgery and its essential part i.e., nasal packing, falls back to 1800. [7] The functional surgery of the nose started in France at the turn of the century where different sort of nasal packs remained part and parcel of the era.[8] When one looks at the percentage of the patients who require nasal packing after septoplasty in this study, nasal packing after septoplasty seems to be more of customary than actually required. But still it is being done in majority of the centers. It is not at all evidence based. Anterior nasal packing after septoplasty is being practiced pre-emptively just to encounter the fear of bleeding after operation. Post operative hemorrhage is highly unlikely in neatly and cleanly performed operations.[9]

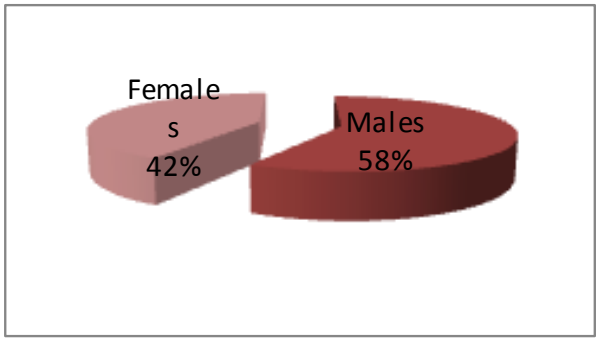

Fig. 1. Sex distribution; Males: 58% and Females: 42%

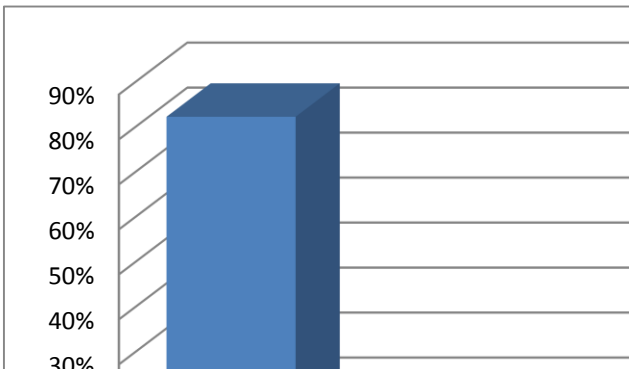

Fig.2. Complications of septoplasty

Fig.3. Septoplasty with and without nasal packing

A study carried out by Bajaz et al also shows that septoplasty can be safely performed without postoperative nasal packing.[10] Moreover there are studies which contradict the role of nasal packing after every septoplasty and the same studies also question the role of nasal packing to decrease the risk of postoperative intranasal adhesions.

Rather nasal packing may promote intranasal adhesions especially in case of BIPP pack. This practice of routine nasal packing after each and every case of septoplasty needs to be reviewed and one should either not use undue nasal packs or if need arises, the material should be Teflon or paraffin instead of BIPP and merocel because both these materials are more uncomfortable and more traumatic for the patients during their removal.[11] Furthermore using the nasal packs in 100% patients after septoplasty is not only the wastage of economy and time but also it exposes the patients to the risks of nasal packing, few of which like toxic shock syndrome can be fatal and its incidence in America is 16.5/100000 nasal packs.[12] 83% success in our study regarding septoplasty without nasal packing surely indicates that we should be highly selective for doing nasal packing only for those who keep on oozing after the operation. This postoperative oozing of blood can be minimized by applying quilting sutures on the septum.[13]

Still there is a room for such oozy patients to avoid nasal packing if second generation surgical sealants like Quixil (crosseal) are applied.[14] This will definitely save large number of patients from an agonizing situation of absolute nasal obstruction for 24 to 48 hours which carries its own hazards of excessive dryness of mouth, unpleasant smell around the patient, loss of smell, taste and increased incidence of respiratory tract infection resulting from bypassing the very important filtration function of the nose. A study conducted by Naghibzadeh et al showed that the rate of complications and morbidities was the same in both groups except pain and discomfort postoperatively and at the time of nasal pack removal.[15] If we adopt the policy of nasal packing in selected cases only, we can surely bring back those patients of DNS towards surgery that keep on using potentially dangerous nasal drops and sprays to reverse their nasal obstruction and avoid curative surgery because of their valid apprehension and reservation about nasal packing and its painful removal.

Serial number	Age range	Number of patients	Percentage
1	11-15 years	08	08%
2	16-20 years	30	30%
3	21-25 years	22	22%
4	26-30 years	18	18%
5	31-35 years	12	12%
6	36-40 years	10	10%

Table.1. Age distribution of the patients undergoing septoplasty

CONCLUSION:

Routine use of nasal packing after septoplasty is not justified. DNS can be safely treated with septoplasty without anterior nasal packing and by taking quilting sutures on the septum. It should be reserved for those who keep on oozing after operation, return with reactionary bleeding or develop postoperative septal hematoma.

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AVARICE IS DISGRACE; COWARDICE IS A DEFECT; POVERTY OFTEN DISABLES AN INTELLIGENT MAN FROM ARGUING HIS CASE; A POOR MAN IS A STRANGER IN HIS OWN TOWN; MISFORTUNE AND HELPLESSNESS ARE CALAMITIES; PATIENCE IS A KIND OF BRAVERY; TO SEVER ATTACHMENTS WITH THE WICKED WORLD IS THE GREATEST WEALTH; PIETY IS THE BEST WEAPON OF DEFENSE.

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