



Comparative Study of Septoplasty with Nasal Packing or Transseptal Suturing

DR SACHIN NILAKHE

Associate Professor, Department Of ENT, BHARATI VIDYAPEETH DEEMED UNIVERSITY MEDICAL COLLEGE & HOSPITAL, Wanlesswadi, Sangli-Miraj Road, SANGLI – 416410

DR WILSON DESAI

Professor, Department of ENT, BHARATI VIDYAPEETH DEEMED UNIVERSITY MEDICAL COLLEGE & HOSPITAL, Wanlesswadi, Sangli-Miraj Road, SANGLI – 416410

ABSTRACT

INTRODUCTION - Nasal packing after nasal septal surgery has been practiced for decades to prevent post-operative septal haematoma formation. Post-operative nasal packing is associated with pain and discomfort. Transseptal intranasal quilting suture using vicry is good alternative viable option for nasal packing.

MATERIAL AND METHODS - A prospective study was conducted on 90 Patients over 2 years period who underwent Septoplasty. They were divided into two groups - Group A (n = 48) was patients with post-operative nasal packing and the other Group B (n = 42) who underwent nasal quilting sutures without nasal packing. Post-operative pain scores and other possible complications are compared in both groups.

CONCLUSION - Trans-septal quilting sutures is effective option for nasal packing after septal surgery which significantly reduce the post-operative pain and discomfort. Post-operative symptoms like epiphora, dry mouth, dysphagia, sleep disturbance and ear blockage/pain was also less common with transeptal sutures. Nasal packing should be reserved only for selected cases.

KEYWORDS

SEPTOPLASTY, NASAL PACKING, TRANSSEPTAL SUTURES

INTRODUCTION:

Septoplasty is one of the commonly performed surgery by the ENT Surgeons. Nasal packing after nasal septal surgery has been practiced for decades to prevent post-operative septal haematoma formation. The post-operative nasal packing is to achieve good flap opposition with a snugly fitting pack that would exert a sustained, continuous & equal pressure from either side of the nasal septum.¹ Comparative studies between the different packing material has been conducted from time to time.

In spite of all the advantages discussed of post-surgery nasal packing the disadvantages of a pack in situ especially with a patient angle is seldom considered. The agony of pain & discomfort that the patient has to undergo in the 48 hours post operatively should be a fact that should be primarily taken into consideration specially as there is no fixed parameters regarding the size, length and amount of nasal pack to be introduced into the nasal cavities a little over jealous packing done by the surgeon would only add to the patients misery.^{2,4,6}

Transseptal intranasal quilting suture using vicry is good alternative viable option for nasal packing. It reduces the chances of septal haematoma formation n also provides good flap approximation. The post-operative pain associated with quilting sutures much lesser as compared to nasal packing.³

With this fact this study was aimed to find out the better option to manage post-operative septal haematoma between the nasal packing or quilting sutures.

MATERIAL AND METHODS:

After obtaining approval from local ethical committee 90 Patients over 2 years period who underwent Septoplasty with informed consents were taken into consideration in this study. The patients not included in this study were patients below 18 years or those with history of previous nasal surgery or patients with history of bleeding disorders or history of associat-

ed other nasal pathologies.

The procedure was carried out under General Anesthesia or Local Anesthesia with sedation. Those patients who needed use of gouge hammer for removal of bony spurs were preferred to be done under GA. Two surgeons (WD, SN) were the operating surgeons in the above procedure in all cases irrespective of the anesthesia. Before the infiltration the nasal cavity was packed with a combination of 4% Xylocaine & Adrenaline. The nasal septum was infiltrated with 2% xylocaine with adrenaline (1:200,000) dilution. All the surgeries were carried out following standard steps of septoplasty. Few patients at the end of surgery undergo bilateral nasal packing using ribbon gauge soaked in BIPP. Rests of the patients undergo transeptal quilting suturing after complete haemostasis using 3-0 vicryl to approximate septal flaps.

The nasal packs were removed after 24hrs while patients with quilting sutures were observed for any post operative nasal bleeding in first 24 hrs. All the patients were discharged next day of pack removal. All the patients received identical analgesics. They were asked to rate the pain on a Visual Analog Scale (VAS) of 1 (minimal) to 10 (unbearable) after 24hr, at time of discharge and at day 7 postop when they had come for follow up. Just prior to discharge all patients fill questionnaire to indicate whether they had experienced any Headache, Epiphora, Dysphagia or Sleep Disturbance on the night of surgery. All the patients called for follow up on day 7 postop and examined for nasal crusting, septal haematoma and nasal synechae.

A closed envelop system was used to randomize the patients into two groups. Group A (n = 48) was patients with post-operative nasal packing and the other Group B (n = 42) who underwent nasal quilting sutures without nasal packing. Group A included 18 females and 30 males between the age group of 18 to 55(Mean Age 28 yrs). Group B included 14 females and 28 males between the age group of 18 to 55 years (Mean Age 27yrs).

RESULTS :**Post-operative pain score was tabulated in Table 1****TABLE 1 – MEAN PAIN SCORE IN BOTH GROUPS**

	MEAN PAIN SCORE	
	GROUP A (n = 48) WITH PACKING	GROUP B (n = 42) WITH QUILTING SUTURES
FIRST 24 hrs	5.6	2.6
SCORE DURING PACK REMOVAL	7.8	-
AFTER 48 hrs	4.2	2.2
AFTER 7 DAYS	3.2	1.4

Our results shown that post-operative pain scores were much higher in the Group A i.e. patients with nasal packing which accounts for mean score of 5.6 in first 24 hrs with maximal during the pack removal (7.8) compared to the Group B with quilting sutures having mean pain score 2.6.

Incidence of post-operative complications like post-op bleeding, synechae formation, septal haematoma, epiphora, dry mouth , dysphagia, sleep disturbance and ear blockage/pain are tabulated in Table – 2

TABLE 2 – POSTOPERATIVE SIGNS AND SYMPTOMS IN BOTH GROUPS

SYMPTOMS/SIGNS	GROUP A (n = 48) WITH PACKING	GROUP B (n = 42) WITH QUILTING SUTURES
POSTOP BLEEDING	1 (2.08%)	2 (4.76%)
SYNECHAE	8 (16.66%)	-
SEPTAL HAEMATOMA	1 (2.08%)	1 (2.38%)
SLEEP DISTURBANCE	22 (45.83%)	4 (9.52%)
EPIPHORA	23 (47.91%)	2 (4.76%)
DYSPHAGIA	15 (31.25%)	1 (2.38%)
DRY MOUTH	27 (56.25%)	6 (14.29%)
EAR BLOCKAGE/ EAR PAIN	16 (33.33%)	3 (7.14%)

Post-operative symptoms like epiphora, dry mouth , dysphagia, sleep disturbance and ear blockage/pain was significantly higher in the patients with packing group while postoperative bleeding, synechae or septal haematoma did not show significant difference between both the groups.

DISCUSSION:

Nasal septal surgeries remained one of the most common surgeries that are performed by the ENT surgeons. In spite of the number of studies that are undertaken to improve the end results in this surgery and to make this surgery as less traumatizing to the patient as possible. In spite of the proven and documented complications that are associated in the use of nasal packs this still remains very much a part of the nasal surgery even to this date. The main aim is to ensure haemostasis. The main advantage of nasal packing is closure of dead space and good septal flap apposition which prevents haematoma.^{2,6,7}

Nasal packing on the other hand appears to be the only part of nasal surgeries that causes much discomfort and pain for a patient undergone nasal surgeries, often much more than the actual surgical procedure. Other major disadvantages of nasal packing are^{6,8,9}

1. Patient discomfort – Mouth breathing, dryness, dysphagia
2. Sleep disorders due to reduced saturation
3. Hospital stay prolonged – Need of antibiotic cover
4. Aspiration or ingestion of pack
5. Increased mucosal reaction causing increased secretions
6. Pain and discomfort maintaining the pack and during pack removal
7. More chances of synechae formation

Transeptal quilting sutures is another effective option to avoid post-septoplasty nasal packing. It also helps in good approximation of septal flaps thereby prevents septal haematoma.³

In present study we had compared incidence of different complications in nasal packing group with patients undergoing quilting sutures for approximation of septal flaps. Our results shown that post-operative pain scores were much higher in the Group A i.e. patients with nasal packing which accounts for mean score of 5.6 in first 24 hrs with maximal during the pack removal (7.8) compared to the Group B with quilting sutures having mean pain score 2.6. It suggest that nasal packing is associated with significant pain and patient discomfort as compared to quilting sutures.

Post-operative symptoms like epiphora, dry mouth , dysphagia, sleep disturbance and ear blockage/pain was significantly higher in the patients with packing group while postoperative bleeding, synechae or septal haematoma did not show significant difference between both the groups. Findings are comparable with the other studies.

CONCLUSION:

1. Trans-septal quilting sutures is effective option for nasal packing after septal surgery which significantly reduce the post-operative pain and discomfort.
2. Post-operative symptoms like epiphora, dry mouth , dysphagia, sleep disturbance and ear blockage/pain was also less common with transeptal sutures.
3. Nasal packing should be reserved only for selected cases.

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