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## ORIGINAL ARTICLE

# A Comparison of Post-operative Pain After Septoplasty with and without Nasal Packing in Patients Presenting with Nasal Septal Deformities

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## ABSTRACT

**Objective:** Objective of this study was to compare the post-operative pain after septoplasty with and without nasal packing in patients presenting with nasal septal deformity (NSD).

**Methodology:** This randomized controlled trial was conducted at Department of Otolaryngology Sir Ganga Ram Hospital, Lahore for a duration of one year in the year 2014. One hundred cases of nasal septal deformity were included in the study through Non-Probability Purposive Sampling. The patients were randomly divided into two groups. In group A, 50 patients underwent septoplasty with nasal packing while in group B, septoplasty without nasal packing was done in 50 patients. Postoperative severe pain (visual analogue scale VAS>7) was noted. The collected data was analysed statistically by using SPSS version 16. Both groups were compared for post-operative pain by using chi-square test. P-value <0.05 was considered as significant.

**Results:** In this study, patients in whom packing was done, post-operative severe pain on visual analogue scale(VAS) was noted in 24 (48%) cases while in the non- packing group, post-operative severe pain was noted in 10(20%) patients only. Statistically there is a significant difference between the study groups for post-operative pain score (p-value=0.003).

**Conclusion:** Septoplasty without nasal packing has less pain as compared to the one with nasal packing.

**Key words:** Nasal septal deformity, septoplasty, nasal packing, pain, visual analogue scale.

## INTRODUCTION

Nasal septal deformity is a very common problem. One study reported the frequency of NSD as 50.3% among the patients who visited Seoul National University Hospital Health Care Center, Korea<sup>1</sup>.

Septoplasty is an operation to correct deformity of the nasal septum and it is the only solution to this problem.<sup>2</sup> Splints or packs are frequently placed in the nose for a few days after nasal septal surgery<sup>3</sup>. This is based on the assumption that packing would result in good flap apposition and minimize the risk of complications<sup>4</sup>. Literature has controversial results regarding nasal packing<sup>5</sup>. Thus we hypothesized this study to prove that septoplasty without nasal packing is more beneficial as compared to the one with nasal packing.

## MATERIAL AND METHODS

This randomized controlled trial was conducted at Department of Otolaryngology Sir Ganga Ram

Hospital Lahore for a duration of one year in the year 2014. One hundred cases of either gender, between ages 20-70 years who presented in ENT OPD with nasal septal deformity were included in the study through Non-Probability, Purposive Sampling technique. Patients having medical record of nasal malignancy and revision surgery on the nose were excluded from the study. Informed consent and demographic information of patients were obtained. The patients were randomly divided into two groups. In group A, 50 patients underwent septoplasty with nasal packing while in group B, 50 patients underwent septoplasty without nasal packing. In the packing group, packing was performed uniformly by inserting glove-finger packs lubricated with liquid paraffin/ antibiotic ointment. Packs were removed after 24hrs of surgery. Packs were removed 24hrs after surgery. Post-operative severe pain (VAS>7) was noted one day after surgery. All this information was recorded through pre-designed proforma .

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The collected data was analysed statistically by using SPSS version 16. Quantitative variables like age were presented in the form of mean ± S.D.

Qualitative variables like gender and post-operative pain were presented in the form of frequency and percentage. Both groups were compared for post-operative pain by using chi-square test. P-value <0.05 was considered as significant.

**RESULTS**

In this study the mean age of patients in packing group was 55.42±8.72 years with age range of 22-70 years while the mean age of patients in non-

packing group was 53.82±9.24 years with age range of 26-69 years (Table-1). With packing there was significantly more pain as compared to the one without packing (**Table-2**). Patients in whom packing was done, post-operative severe pain was noted in 24 (48%) cases while in non- packing group it was noted in 10 (20%) patients only. Statistically there is a significant difference between the study groups for post-operative pain score (p-value=0.003). With packing there were more patients who had severe pain as compared to the ones without packing (Table-3).

**Table 1:** Descriptive statistics about Age of the patients

		Study Group	
		With packing	Without packing
Age (Years)	N	50	50
	Mean	55.42	53.82
	SD	8.72	9.25
	Minimum	22	26
	Maximum	70	69
	Range	48	43

**Table 2:** Descriptive statistics about Post-op pain

		GROUP	
		With packing	Without packing
Post-op pain	N	50	50
	Mean	7.12	5.20
	SD	1.55	2.09
	Minimum	4	2
	Maximum	9	9
	Range	5	7

t-test value = 5.22 p-value=0.000 (Significant)

**Table 3:** Distribution about Severe pain status in the study groups

		Group		Total
		With packing	Without packing	
Severe pain	Yes	24 (48%)	10 (20%)	34 (34%)
	No	26 (52%)	40 (80%)	66 (66%)
	Total	50 (100%)	50 (100%)	100 (100%)

p-value = 0.003 (Significant)

**DISCUSSION**

The most frequent problem that septoplasty patients worry about is the pain and discomfort that

they have to go through during nasal packing and its removal<sup>6</sup>. Some studies advocated that nasal packing can prevent hemorrhage or hematoma

formation, but their sample size was small<sup>7</sup>. Because of the patient's discomfort, and known complications, there is controversy about its usage<sup>8</sup>. It causes discomfort and distress at the time of removal and whoever experienced this painful event, could not forget it<sup>9</sup>. In our study, we observed that with nasal packing there was significantly more pain [VAS 7.12±1.54] as compared to the one without nasal packing [5.20±2.09]. One study revealed that the average VAS score was 5 in the packing group and 2.1 in the non-packing group (p = 0.01).<sup>10</sup> In our study, with nasal packing, post-operative severe pain was noted in 24 (48%) cases while without packing, post-operative severe pain was noted in 10 (20%) only. Statistically there is a significant difference between the study groups for post-operative pain score (p-value=0.003). Findings of these studies confirm that nasal packing after septoplasty is not only unnecessary, it is actually a source of patient discomfort and other signs and symptoms<sup>11</sup>. Some procedures such as wrapping the packs with gel foam, blocking the sphenopalatine ganglion, moistening packs with topical local anesthetics and using pre-emptive analgesics were suggested to decrease the pain<sup>12,13,14,15,16</sup>. Suturing the septum in septoplasty is suggested as a safe procedure that can replace nasal packing, so that patients would not have to go through the painful event of packing removal.<sup>17</sup>

## CONCLUSION

Through the results of this study, we have concluded that septoplasty without nasal packing has less pain as compared to the one with nasal packing.

## REFERENCES

1. Georgiou I, Farber N, Mendes D, Winkler E, Wee JH et al. Classification and prevalence of nasal septal deformity in Koreans according to two classification and prevalence of nasal septal deformity in Koreans according to two classification systems. *Acta Otolaryngol.* 2012 Jun; 132 Suppl I: S52-7.
2. The role of antibiotic in Rhinology and septoplasty: a literature review. *Rhinology.* 2008 Dec; 46(4): 267-70.
3. Lubianca-Neto JF, Sant'anna GD, Mauri M, Arrate JL, Brinckmann CA. Evaluation of time of nasal packing after nasal surgery: a randomized trial. *Otolaryngol Head Neck Surg.* 2000 Jun; 122(60): 89.
4. Awan MS, Iqbal M. Nasal packing after septoplasty: a randomized comparison of packing versus no packing in 88 patients. *Ear Nose Throat J.* 2008 Nov;87(11):624-7.
5. Von Schoenberg M, Robinson P, Ryan R. nasal packing after routine nasal surgery—is it justified? *J Laryngol Otol.* 1993 Oct; 107(10):902-5.
6. Yilmazer C, Sener M, Yilmaz I, Erkan AN, Cagici CA, Donmez A, et al. Pre-emptive analgesia for removal of nasal packing: A double-blind placebo controlled study. *Auris Nasus Larynx.* 2007 Dec; 34(4): 471-5.
7. Ardehali MM, Bastaninejad S. Use of nasal packs and intranasal septal splints following septoplasty. *Int J Oral Maxillofac Surg.* 2009 Oct; 38(10):1022-4.
8. Naghibzadeh B, Peyvandi AA, Naghibzadeh G. Does post septoplasty nasal packing reduce complications? *Acta Medi Iran.* 2011;49(1):9-12.
9. Nunez DA, Martin FW. An evaluation of post-operative packing nasal septal surgery. *Clin Otolaryngol Allied Sci.* 1991 Dec;16(6):549-50.
10. Awan MS, Iqbal M. Nasal packing after septoplasty: a randomized comparison of packing versus no packing in 88 patients. *Ear Nose Throat J.* 2008 Nov; 87(11):624-7.
11. Rashid A, Aziz B, Khan MA, Hameed A. Analytical assessment of nasal packing in septoplasty. *Pak J Med Health Sci.* 2001;5(2):232-5.
12. Leek JH. Combine Marocel and Gelfilm as a nasal pack. *Laryngoscope.* 1985 Jan; 95(1):99.
13. Hwang JH. Liu CM, Liu TC, Hsu Mc. Sphenopalatine ganglion block before removal of nasal packing laryngoscope. 2033 Aug; 113(8):1423=412.
14. Lavy JA. Small GV, Jay N, Radcliffe GJ. A prospective randomized controlled study of 4% lignocaine solution in Merocel nasal pack removal. *Rhinology.* 1996 Dec;34(4):219-21.
15. Kuo JM, Zeitoun H, macnamara M, Wagstaff k, Carlin WV, Turner N. The use of topical 5% lignocaine ointment for the relief of pain associated with post-operative nasal packing. *Clin Otolaryngol Allied Sci.* 1995 Aug;20(4):357-9.
16. Yilmazer C, Sencer M Yilmazl, Erkan An, Cagici CA, Donmez A, et al. Pre-emptive analgesia for removal of nasal packing: a double-blind placebo controlled study. *Auris Nasus Larynx.* 2007 Dec; 34 (4):471-5.
17. Genc E. Ergin NT, Bilezikci B. Comparison of suture and nasal packing in rabbit noses. *Laryngoscope.* 2074 Arp;114(4):639-45.