

# Comparison of Efficacy of Nasal Packing Vs No Packing in Patients Undergoing Functional Endoscopic Sinus Surgery (FESS)

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## ABSTRACT

**Aim:** To compare the efficacy of nasal packing versus no nasal packing in patients undergoing FESS.

**Methods:** This comparative study was carried out at Department of Head and Neck Surgery, Civil Hospital Quetta and Chaudhary Rehmat Ali Memorial Trust Hospital, Lahore from 1<sup>st</sup> October 2014 to 30<sup>th</sup> August 2015. A total of 100 cases (50 in each group) were enrolled in the study with 18-50 years of either gender having chronic sinus diseases while we excluded cases with indication for septoplasty, turbinate surgery, or use of other nasal packing, which would have hampered a valid comparison of the packing and no packing and presence of a severe medical or neuropsychiatric disorder. Group-A was allotted to Nasal Packing (applied according to departmental protocols), and Group-B to the patients with no nasal packing. All patients after FESS were followed till 48 hours for post-operative bleeding. The patients with post-operative bleeding in both groups were recorded.

**Results:** Mean age of the patients was calculated as 43.19±4.28 years of age, majority of the patients in both groups were between 31-50 years. Male were recorded in 27(54%) in Group-A and 26(52%) in Group-B while remaining cases were females i.e., 23(46%) in Group-A and 24(48%) in Group-B, comparison of efficacy (no post-operative bleeding) was recorded in 47(94%) in Group-A and 41(82%) in Group-B, p value was calculated as 0.06, which is no in-significant.

**Conclusion:** We concluded that post operative bleeding was higher in packing group while this difference was not significant.

**Keywords:** Efficacy, Nasal packing, FESS

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## INTRODUCTION

Nasal-sinus disease is prevalent throughout the world<sup>1</sup>. Functional endoscopic sinus surgery (FESS) is one of the more common procedures for chronic sinus diseases treatment<sup>2</sup>. It is performed over 200,000 times annually in the United States to treat medically refractory sinusitis, FESS has success rates as high as 98%<sup>3</sup>. It is a highly sophisticated type of surgery, which has revolutionized the surgical management of chronic sinus diseases<sup>4</sup>. When surgical failure occurs, it is typically due to postoperative scarring or unaddressed outflow tract obstruction in the region of the frontal recess<sup>3</sup>.

Although less invasive than the Caldwell-Luc operation or intranasal ethmoidectomy, it is inevitable to avoid postoperative bleeding because of the abundant blood supply in sinonasal cavities. Most surgeons pack the nasal cavity postoperatively with gauze or Merocel (Medtronic Xomed, Jacksonville, FL)<sup>5</sup>. Nasal packing not only causes patient discomfort due to nasal obstruction and postnasal

drip, but also gives patient physical and psychological trauma when removing it. It has been claimed that postoperative packing removal is even more stressful than the surgery itself<sup>6</sup>.

A number of studies<sup>7-9</sup> are of the view that nasal packing may be avoided in patients undergoing FESS, contrary to the above findings/recommendations, Wee JH<sup>10</sup> in his recent trial demonstrates that nasal packing is necessary and a packing material has benefits in both cost and efficacy.

We planned this study with the view that whether nasal packing is effective in patients undergoing FESS as compared to without packing, if we recorded a significant difference in controlling postoperative bleeding in our patients then nasal packing may be used in our routine practice to avoid post-operative bleeding.

## MATERIAL AND METHODS

A total of 100 cases (52 in each group) were enrolled in the study with 18-50 years of either gender having chronic sinus diseases while we excluded cases with indication for septoplasty, turbinate surgery, or use of other nasal packing, which would have hampered a valid comparison of the packing and no packing and

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presence of a severe medical or neuropsychiatric disorder.

All patients fulfilling the inclusion criteria were admitted through the out patients and emergency Department of Head and Neck Surgery, Civil Hospital Quetta and Chaudhary Rehmat Ali Memorial Trust Hospital, Lahore. Approval from hospital ethical committee was taken along-with informed consent of the participants of the study. Two groups were formed, following random number table method, Group-A was allotted to Nasal Packing (applied according to departmental protocols), and Group-B to the patients with no nasal packing. All patients after FESS were followed till 48 hours for post-operative bleeding. The patients with post-operative bleeding in both groups were recorded on a proforma. Data was entered and computed on SPSS-11. Age was calculated as mean and standard. Frequencies and percentages were calculated for qualitative variable i.e. gender and efficacy (no post-operative bleed). Chi square test was applied to compare the significant difference regarding efficacy of in both groups. P-value of  $\leq 0.05$  was considered statistically significant.

## RESULTS

Mean age of the patients was calculated as  $43.19 \pm 4.28$  years of age, majority of the patients in both groups were between 31-50 years (Table 1). Male were recorded in 27(54%) in Group-A and 26(52%) in Group-B while remaining cases were females i.e. 23(46%) in Group-A and 24(48%) in Group-B (Table 2). Comparison of efficacy (no post-operative bleeding) was recorded in 47(94%) in Group-A and 41(82%) in Group-B, p value was calculated as 0.06, which is no in-significant (Table 3).

Table 1: Age distribution (n=100)

Age (years)	Group A (n=50)		Group B (n=50)	
	No.	%	No.	%
18-30	21	42	23	46
31-50	29	58	27	54

Table 2: Gender distribution (n=100)

Gender	Group A (n=50)		Group B (n=50)	
	No.	%	No.	%
Male	27	54	26	52
Female	23	46	24	48

Table 3: Comparison of efficacy in both groups (n=100)

Efficacy	Group A (n=50)		Group B (n=50)	
	No.	%	No.	%
Yes	47	94	41	82
No	3	6	9	18

P value=0.06

## DISCUSSION

Most of the patients with medically resistant chronic rhinosinusitis are treated with FESS and this procedure is considered as the choice of treatment. In most of the cases, nasal packing is used soon after surgery for minimizing mucosal bleeding and support for the wound healing process. However, the use of nasal packing is questioned due to different point of views of different authors.

However, in this study we planned to evaluate the efficacy of nasal packing in cases who were treated with FESS with regards to no-post operative bleeding. In our study, we recorded most of the cases with nasal bleeding had no post-operative bleeding as compare to the cases without nasal packing, however, it was not significantly different.

Our findings are supported with a number of studies<sup>7-9</sup> reveal that nasal packing may be avoided in patients undergoing FESS, contrary to these findings/recommendations Wee JH<sup>10</sup> in his recent trial demonstrates that nasal packing is necessary and a packing material has benefits in both cost and efficacy.

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Another study by Xu and others<sup>11</sup> conducted a study to determine the sensation of the patients and the treatment effect were compared prospectively between the no nasal packing group and the common nasal packing group and concluded that "*no nasal packing could relieve the discomfort caused by nasal packing and avoid the re-bleeding and pain when removing the nasal stents.*" No nasal packing has obvious superiority than common nasal packing, and is effective in the treatment of depression. It is appropriate for type I and type II chronic sinusitis patients without systemic disease with limited economic conditions, however, these findings also support of our study.

These findings also support that no nasal packing is more beneficial in cases after FESS. However, no significant difference in cases with and without packing was recorded with post-operative bleeding. Further studies are required in our population to validate our findings.

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