

Original article:

Study of success rates of different treatment modalities of epistaxis

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Abstract:

Introduction: Epistaxis is defined as bleeding from the nose. Most epistaxis patients can be managed by simple conservative techniques such as nasal packing or cauterization of bleeding points directly or with the help of endoscopes.

Material and methods: A study was conducted in Department of Otorhinolaryngology at St. Stephen's Hospital, on 100 patients with epistaxis . Patients presenting in the ENT OPD or Casualty, or referred from other departments in St. Stephen's hospital, New Delhi. Hundred patients of both sexes and all age groups presenting with epistaxis were included in this study.

Results: As per our study, anterior nasal packing was successful in 68% patients on initial attempt. In 18 (18%) out of 100 patients of bleeding could only be controlled by endoscopic cauterisation of the source of the bleeding. 1 (1%) patient, responded to posterior nasal packing. Surgical methods such as Nasal bone reduction and septoplasty were done in 10 (10%) of patients.

Conclusion: Majority of cases responded to anterior nasal packing. Rest of the cases were surgically managed which included endoscopic cauterisation of the source of the bleed which included cauterisation of Sphenopalatine artery in some cases.

Introduction:

Epistaxis is defined as bleeding from the nose. Most epistaxis patients can be managed by simple conservative techniques such as nasal packing or cauterization of bleeding points directly or with the help of endoscopes. ¹Interventional treatment i.e. surgical treatment is warranted when bleeding is continued after adequate conservative treatment or when bleeding is massive and severe, compromising the vital prognosis. This includes septal surgery, sinus surgery, and arterial ligation and embolization procedures. Each patient of epistaxis should be clinically assessed and managed as per individual merits. The traditional methods of management of epistaxis include anterior nasal packing, nasal balloons and arterial ligation.² Nasal packing is the most commonly employed method. It is associated with high failure rate of 26– 50%, along with marked discomfort, pain and swallowing difficulty. Further nasal packing may lead to a number of local and systemic complications. Local complications comprise of sinusitis, synechiae, otitis media, columellar/alar necrosis, septal perforation, facial oedema, epiphora/dacryocystitis, orbital cellulitis and even cavernous sinus thrombosis.³ Various general complications reported are toxic shock syndrome, hypoxia, angina, cardiac arrhythmia, sepsis and even

death .Keeping these complications in view, patients with anterior nasal packing require hospitalization and constant monitoring.

Material and methods:

A study was conducted in Department of Otorhinolaryngology at St. Stephen's Hospital, on 100 patients with epistaxis

Type of study: Descriptive study

Patients presenting in the ENT OPD or Casualty, or referred from other departments in St. Stephen's hospital, New Delhi.

Inclusion criteria

Hundred patients of both sexes and all age groups presenting with epistaxis were included in this study.

Exclusion criteria

Patients presenting with epistaxis resulting from recent nasal or paranasal sinus surgery were excluded from this study.

1. Patients were informed regarding the method of treatment and a written and informed consent duly signed by them was taken.
2. A detailed history was asked, especially history of trauma/fever/sore- throat/foreign body insertion/nose picking/drug intake/bleeding diathesis/hypertension/other illnesses.

Results:

A study was conducted in the Department of Otorhinolaryngology at St. Stephen's Hospital on 100 patients with epistaxis. Patients from all age groups were included in this study.

The mean age was 44.27 years of age. Median came to be 45 years of age and mode was 60 years of age. Maximum patients were above 50 years.

Table 1: Treatment modalities in patients

Treatment modality	Frequency	Percent
Anterior nasal packing	68	68%
Electrocautery	18	18%
Nasal bone reduction (NBR)	5	5%
Nasal bone reduction with Septoplasty	1	1%
Medical treatment	2	2%
Posterior nasal packing	1	1%
Septoplasty	4	4%
Suturing	1	1%
Total	100	100%

p = 1

As per our study, anterior nasal packing was successful in 68% patients on initial attempt. In 18 (18%) out of 100 patients of bleeding could only be controlled by endoscopic cauterisation of the source of the bleeding. 1 (1%) patient, responded to posterior nasal packing. Surgical methods such as Nasal bone reduction and septoplasty were done in 10 (10%) of patients.

Discussion:

Treatment options by conservative techniques had expanded over the last 10 years quite significantly. Presently techniques using modern technology like latest optic and electrical devices have an upper edge over traditional strategies like nasal packing.

Nasal packing has an advantage of easy placement, removal and cost benefits. Disadvantage lies in the fact that, it requires considerable training besides causing significant discomfort to the patient. Above all, there are invitations to severe problems because of the easy traumatization during the packing procedure. Apart from the high failure rate of up to 26–50%, it is associated with marked discomfort, pain and swallowing difficulty. It can lead to a large number of local and systemic complications.⁴

As per our study, anterior nasal packing was successful in 68% patients on initial attempt. In 18 (18%) out of 100 patients of bleeding could only be controlled by endoscopic cauterisation of the source of the bleeding. 1 (1%) patient, responded to posterior nasal packing. Surgical methods such as Nasal bone reduction and septoplasty were done in 10 (10%) of patients.

Our study showed similarity in this respect to others like in a study done by Muhammad Ismail Khan, it was successful in 78% of patients on initial attempt.⁵ Nicholaides et al has reported successful use of anterior nasal packing in only 22.3% cases.⁶ In contrast, Gilyoma et al has used anterior nasal packing for 38.5% of his patients and noted a success rate of 92.5%^[37] Similarly Hussain G et al, reported a success rate of 98.2% for anterior nasal packing in managing epistaxis.⁷

As much as 68% rate of complications has been reported by Wang et al.⁸ In a study by Muhammad Ismail Khan et al, infection (sinusitis and acute otitis media) was seen in 6% and 4% of patients after anterior nasal packing and silver nitrate cautery respectively.⁵ Juselius and Malik, have observed acute otitis media in 0.9-6.8% cases after anterior nasal packing.⁹ Facial oedema was noticed following anterior nasal packing by Malik and Okafor in 8.4- 13.3% cases.^{10,11} In a study conducted by Chauhan B in 2011, it was concluded that almost all patients in group A with complete nasal packing had dry mouth, difficulty in swallowing and disturbed sleep. They interpreted that nasal packing with an airway may help to reduce post-operative morbidity and risk of hypoxemia.¹² Sunitha Chhapola, Inita Matta and Prathima Marker done a study to compare blind nasal packing (Group A) with endoscopic control (Group B) of epistaxis in emergency setting. Group A had nasal mucosal erosions in 55% patients, secretory otitis media in 2.5% and synechiae formation in 12.5% cases. Re bleeding occurred in 35% patients after removal of nasal pack.

Conclusion:

Majority of cases responded to anterior nasal packing. Rest of the cases were surgically managed which included endoscopic cauterisation of the source of the bleed which included cauterisation of Sphenopalatine artery in some cases.

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