



CONSERVATIVE MANAGEMENT, A PREFERRED FIRST LINE METHOD FOR TREATMENT OF EPISTAXIS.

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ABSTRACT: Epistaxis is defined as hemorrhage from nose where source of bleeding is inside the nose. There are many factors which can precipitate epistaxis. A number of treatment modalities are used for its treatment, conservative measures and nasal packing being the commonest method of treatment. Conservative method is an effective method of treatment and avoids potential complications of nasal packing. **Objectives:** To assess efficacy of conservative mode of treatment for epistaxis. **Study Design:** Prospective study. **Settings:** Department of Otorhinolaryngology, E.N.T. Unit-I, Allied Hospital/ Faisalabad Medical University, Faisalabad. **Period:** Three months i.e. from 16-10-2018 to 15-01-2019. **Sample Size:** 60. **Material and Method:** **Procedure:** 60 patients were enrolled according to inclusive and exclusive criteria. Conservative measures were applied to patients including cold water gargles, nasal pinching and Trotter's method. Patients were observed for control of epistaxis and number of patients noted in whom conservative measures were not successful and nasal packing was done. No patient among the sample needed the surgical intervention due to failed conservative measures or nasal packing. Frequency and percentage calculated for data and chi-square test applied and level of <0.05 taken significant. **Results:** 60 patients enrolled with age range from 5-75 years and mean age as 39.53 years. Out of 60 patients, 38 were male and 22 were females. Out of 60 patients, 42 patients (70%) were treated successfully using conservative measures and 18 patients (30%) were treated with nasal packing. **Conclusion:** Based upon results of this study, it is concluded that conservative method of treatment of epistaxis is an effective and safe method and avoids potential complications which can occur due to nasal packing.

Key words: Epistaxis, Conservative, Nasal Packing.

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INTRODUCTION

Epistaxis is defined as hemorrhage from inside the nose.¹ Most common artery involved is sphenopalatine artery. It has two varieties, anterior epistaxis, when source of bleeding is in anterior part of nose, the most common source is Little's area (in 90% of cases)^{2,3}, and posterior epistaxis, in which source of bleeding is in posterior part of nose and blood flows posteriorly in throat.⁴ Epistaxis is common emergency being encountered in in E.N.T units that about 60% of population has to suffer from epistaxis once in a life⁵ and at least 10% of them ever had been entertained with medical treatment for epistaxis.⁶ In one study in United States, it has been demonstrated that nearly 5% of patients with epistaxis needed hospitalization admission.^{7,8}

The incidence of episodes of epistaxis differs with the age. Researches show bimodal distribution with peak values in children and adult age groups.⁹ Nose has rich vascular supply from internal carotid and external carotid arteries.¹⁰ That is why bleeding is quite common from nose. Mostly anterior epistaxis is encountered which concludes 90% of cases while 10% of cases are of posterior epistaxis.¹¹ Common causes of epistaxis include trauma, structural and environmental factors, metabolic factors, tumors, blood diathesis, inflammatory causes and drugs.¹² In drugs, anticoagulants are risk factor for epistaxis.^{13,14,15,16} About 24-33% of patients admitted in hospital for treatment of epistaxis give the history of anticoagulant therapy.¹⁷ Similarly, patients with bleeding diathesis come

with recurrent episodes of epistaxis. Different studies in this regard have shown that clotting profile should be performed in patients with suspicion of clotting disorder¹⁸, especially those who come with recurrent epistaxis. Environment and weather also become the important factor as several studies show that episodes of epistaxis are increased in cold environment and cold weather.¹⁹ Hypertension is also an important factor in cases of epistaxis especially in people who come in hospital settings and have fear of it.²⁰ In all patients who come with high blood pressure and epistaxis, blood pressure should be controlled first.^{21,22} Among all these causes, common cause is trauma, nose pricking being the most common traumatic cause²³, especially in children. Treatment options include conservative measures and specific measures. Conservative measures include cold water gargles, pinching of nose²⁴ and Trotter's method. Specific measures include anterior nasal packing, posterior nasal packing, endoscopic cauterization, vessel ligation and TESPAL. TESPAL stands for "trans-nasal endoscopic sphenopalatine artery ligation". This procedure is done with endoscopic technique, in which sphenopalatine artery is coagulated or clipped with help of bipolar diathermy. Although its success rate is high²⁵, but this technique is seldom used as use of cautery increases the risk of septal perforation especially if it is done on both sides.²⁶ Of all these modalities, commonly used are conservative measures and nasal packing. Nasal packing is considered as first line treatment option in many centers, however nasal packing is associated with many complications like pain, trauma, nasal infection, necrosis of nasal mucosa and posterior dislocation. In some countries, topical antiseptic cream or petroleum jelly are used to treat recurrent epistaxis but its efficacy is not fully established.²⁷ In our part of world, study is lacking which can compare conservative treatment, which is associated with no potential side effects, to nasal packing which can be hazardous. So this study is conducted to look for efficacy of conservative mode of treatment of epistaxis as first line method of treatment.

OBJECTIVE

To assess efficacy of conservative mode of

treatment for epistaxis.

MATERIAL AND METHOD

Study Design

Prospective study.

Settings

Department of Otorhinolaryngology, E.N.T. Unit-I, Allied Hospital/ Faisalabad Medical University, Faisalabad.

Duration

Three months i.e. from 16-10-2018 to 15-01-2019.

Sample Size

60

Sampling Technique

Non-probable consecutive sampling.

Inclusion Criteria

Patients presenting in E.N.T. Unit-I, Allied Hospital, Faisalabad for treatment of epistaxis.

Exclusion Criteria

Patients presented with traumatic basal fractures and patients with congenital bleeding diathesis were excluded from study.

Procedure

60 patients were enrolled according to inclusive and exclusive criteria. Conservative measures were applied to patients including cold water gargles, nasal pinching and Trotter's method. Patients were observed for control of epistaxis and number of patients noted in whom conservative measures were not successful and nasal packing was done. No patient among the sample needed the surgical intervention due to failed conservative measures or nasal packing.

Statistical Analysis

Obtained data observed and categorized according to gender and age groups. Frequency and percentage calculated for data and chi-square test applied and level of <0.05 taken significant.

RESULTS

60 patients enrolled with age range from 5-75 years and mean age as 39.53 years. Out of 60 patients, 38 were male and 22 were females. Patients were stratified in group I to group III as group I (less than 25 years), group II (25-50 years) and group III (more than 50 years). Patients were stratified to group to gender distribution. Out of 60 patients, 42 patients (70%) were treated successfully using conservative measures and 18 patients (30%) were treated with nasal packing.

Patient’s group to gender and treatment modality distribution is done. (Table-III).

Statistical analysis is applied for using chi-square test and found that patients of all three age groups can be safely treated with conservative measures as first line modality for either gender.

DISCUSSION

Epistaxis is bleeding from nose and is due to various causes. The cases of epistaxis are seen commonly in males than in females.²⁸ Epistaxis is found prevalent in younger age group (less than 10 years) and old age group (age more than 60

years)²⁹, with males having relatively more history of episodes of epistaxis as compared to females (ratio of 1.6).³⁰ Selection for treatment modality to treat epistaxis is based upon clinical condition of the patient, efficacy of treatment modality, rate of complication and cost effectiveness related to treatment option. Conservative measures and nasal packing are two treatment methods which fulfilled above mentioned qualities and among the two, conservative measures carry least complication rate and high efficacy. According to a study, conservative measures were successful in treating epistaxis in which 81.66% were treated successfully.³¹ Another study showed similar results.³² Our study shows consistent results with previously done studies and showing 70% of patients were successfully treated for epistaxis by conservative measures and is equally effective in all age groups and in either gender.

CONCLUSION

Based upon results of this study, it is concluded that conservative method of treatment of epistaxis is an effective and safe method. It avoids potential complications which can occur due to nasal packing.

	Group I	Group II	Group III	Total
Male	9	21	8	38
Female	4	13	5	22
Total	13	34	13	60

Table-I. Group to gender distribution

	Conservative	Nasal Packing	Total
Group I	9	4	13
Group II	26	8	34
Group III	7	6	13
Total	42	18	60

Table-II. Patient’s group to treatment modality distribution

	Group I		Group II		Group III		Total
	Conservative	Nasal Packing	Conservative	Nasal Packing	Conservative	Nasal Packing	
Male	6	3	15	6	4	4	38
Female	3	1	11	2	3	2	22
Total	9	4	26	8	7	6	60
	13		34		13		

Table-III. Patient’s group to gender and treatment modality distribution

Moreover the general awareness of conservative measures among the population can reduce the patient load of hospitals. So, conservative measures should be considered as preferred first line of treatment option for epistaxis.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

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