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A STUDY ON EPISTAXIS IN A TERTIARY PRIVATE HOSPITAL

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Abstract

Introduction: Epistaxis is the commonest otolaryngological emergency affecting up to 60% of the population in their lifetime, with 6% requiring medical attention. Knowledge of the vascular anatomy is critical to determining the location of the bleed. Once the location is identified, appropriate medical, conservative, or surgical therapy can ensue.

Materials and Methods: The study was done in ENT department in a tertiary private hospital over a period of 1 year from May 2018 to April 2019. 100 study subjects with epistaxis were studied.

Results: A prospective study was conducted. Among the study subjects the maximum cases were from 40-60 year age group-50% followed by >60 year age group (24%).

Keywords: Epistaxis, Trauma, Hypertension, Malignant neoplasm, Etiology, Kadapa

Introduction

Epistaxis or nose bleed is a symptom of a large number of widely diverse conditions. It is a frequent otolaryngological emergency. At some point in their lifetime, 60% of the population will experience a 'nose bleed' and 6% of these people will seek medical attention. [1] It is thought to occur more frequently in males than in females and there is an increasing incidence with age.

The appropriate management strategy depends on both the aetiology and the anatomical classification into anterior or posterior bleed. Epistaxis is the commonest emergency in otolaryngology and often requires admission to the hospital. Management of this condition has changed over the past few years, with ongoing research in the field. [2]

In 2014, a systematic review reported that most studies described raised blood pressure at the time the epistaxis occurred. However, these studies were unable to show hypertension to be an immediate cause of epistaxis. Confounding stress and, possibly, "white coat syndrome" may have contributed to raised arterial blood pressure in the setting of epistaxis. [3]

No uniform guidelines exist for diagnostic and therapeutic procedures in patients with epistaxis. However, clinically tried and tested treatment paths do emerge in hospitals and doctors' offices, based largely on retrospective analyses, case series, and expert opinion. Only few prospective or randomized controlled studies are available for some discrete areas of epistaxis treatment. [4]

Objectives:

A study on epistaxis and its management in a tertiary private hospital.

Materials and Methods

The study was done in ENT department in a tertiary private hospital. over a period of 1 year from May 2018 to April 2019. 100 study subjects with epistaxis were studied. Among the total out patients with epistaxis, 100 study subjects were enrolled using consecutive sampling. This prospective study was done on patients who presented with complaints of nasal bleeding in the Outpatient department of Otorhinolaryngology, Fathima Institute of Medical Sciences, Kadapa, AP.

A detailed history, physical examination and laboratory assessment to rule out the various causes of epistaxis had been done. Details of management of epistaxis such as medical treatment, nasal packing, cauterisation and more definitive surgical interventions such as open reduction and internal fixation were collected.

Statistical Analysis: A standardized set of data was abstracted for each case and statistical analysis done according to the data collected. Descriptive statistics including frequency distribution and proportions were calculated. 95 percent confidence limits computed.

Results:

Table 1: Distribution of study subjects to age groups

Age (years)	Total No. of patients	Percentage
<20	16	16
20-40	10	10
40-60	50	50
>60	24	24
Total	100	100

Among the study subjects the maximum cases were from 40-60 year age group- 50% followed by >60 year age group (24%).

Table 2: Distribution in relation to sex

Sex	Total No. of patients	Percentage
Females	40	40
Males	60	60
Total	**100**	**100**

Among the study subjects, the maximum were males (60%). Females were 40%.

Table 3: Distribution based on etiology

Etiology	Total No. of patients
Trauma	40
Hypertension	18
Infection of sinuses	3
Polyp	3
DNS	5
Nose picking	10
Idiopathic	21
Total	**100**

Among the study subjects, the commonest cause of epistaxis was trauma– 40%, followed by idiopathic – 21%.

Table 4: Distribution of study subjects based on type of epistaxis

Type of epistaxis	Number of patients(n)	Percentage
Anterior	70	70
Posterior	25	25
Mixed	5	5
Total	**100**	**100**

Among the study subjects, 70% belonged to anterior nasal bleeding.

Discussion

Epistaxis- bleeding through the nose is one of the most common and most difficult emergencies to treat. Most episodes are minor in nature but in some cases there could be massive bleeding. Epistaxis can be from anterior or posterior source and it can be from septum or lateral nasal wall. Both systemic and local factors play a role. [5]

The results of this study revealed the most common cause of epistaxis as trauma -40%, which is consistent with other studies. [6] 21% of cases are idiopathic, spontaneous bleeds without any proven precipitant or causal factor. Studies done have stated that idiopathic was the cause of epistaxis. [7-10]

Among the study subjects, the maximum were males (60%), which is consistent with other studies. The male preponderance of epistaxis has been documented in literature. [11-13]

Septal deflections, bony spurs, and fractures are underlying anatomic deformities in the nose that can predispose a patient to epistaxis. Any nasal obstruction leads to a disruption of air flow. The resultant turbulent flow anterior to these obstructions has a drying effect, increasing the opportunity for mucosal disruption and epistaxis. Furthermore, severe deflections/spurs can actually cause local trauma to the lateral nasal wall mucosa. [6]

Medical therapy acts in both a therapeutic and prophylactic manner. Hypertension and other hematologic causes for epistaxis must be identified and corrected initially. Once these conditions are corrected, the majority of bleeds are alleviated with gentle direct pressure in the form of a nose pinch. Furthermore, nasal irrigation with saline and the placement of topical ointment in the nostrils create a humidified nasal environment that can prevent further episodes of epistaxis.

In a study by Shah et al, most common cause of epistaxis was trauma followed by hypertension. [14] This trauma varied from minor injury such as digital trauma to nasal injury from road traffic injury. The nose is highly susceptible in craniofacial injury.

Anterior nasal packing was done in most patients. Those, requiring posterior packing were all hypertensive cases. As adjunct to nasal packing, the normotensive patients were prescribed nasal decongestants. The packs were soaked in antibiotic for local effect as otherwise infection is likely. Systemic prophylaxis with antibiotic was also provided. When bleeding points were visualized, electrocautery was used successfully, without adverse consequences of septal injury and these patients had shortest hospital stay.

Conclusion:

We observed that epistaxis can be seen in any age. However the etiology of this symptom varies with age. Understanding of the etiology helps in better evaluation of the cases.

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