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A Prospective Study on Epistaxis: Series of 60 Cases

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ABSTRACT

Epistaxis is a common ENT problem. This study on epistaxis of 60 cases is to find out the most common causes for epistaxis, prevalence, sex, age group and for early identification of cause and management. Prospective study of series of 60 cases in adults. Idiopathic was the most common cause of epistaxis, males were affected more than females. Most common age group affected is 13-30. Most cases are treated by conservative measures. Idiopathic is the most common cause in the present study. Other causes are trauma, DNS, Sinusitis and JNA in adolescent males. Males are commonly affected than females. The most common age group affected is 13-30 and 41-60 years. Most cases are treated by conservative measures.

Keywords: Epistaxis, Management, Causes, Adults and Idiopathic.

INTRODUCTION

Epistaxis, also known as nasal bleeding, can be originating from the anterior or posterior nasal cavity blood supply. Nasal cavity has a very rich blood supply from branches of the internal and external carotid artery which also anastomose to form anterior and posterior plexuses. The majority of bleeds can be visualised anteriorly (Lee, 2012).

The first mention of epistaxis in medical literature dates back in the year 1867 (Thompson, 1867). Bleeding originating from the anterior nasal cavity was managed with packing the nostril with pledgets. When the bleeding was originating from the posterior nasal cavity, a pledgets secured in a wire was passed down the nostril to tamponade the posterior nasal space and arrest the bleed. In 1901, McKenzie started using adrenaline to arrest the bleed in more severe cases. Surgical treatment of epistaxis was first described in the mid-19th century for the arrest of severe posterior epistaxis (Thompson, 1867, McKenzie, 1901, Davis, 1945). The same management principles are used up to date for the management of epistaxis according to bleeding location, severity and treatment compliance (Flint et al., 2010). The causes of epistaxis include both local and systemic factors [Table 1]. The diagnosis of idiopathic epistaxis requires a careful history, physical examination, and laboratory assessment to rule out the various causes as listed in Table 1.

Epistaxis can be broadly divided as occurring from anterior or posterior sites. Anterior epistaxis is more frequent at an early age. Its origin can be either arterial (Keisselbach area) or venous (retrocolumellar vein). As the bleeding point is easily accessible, this type of epistaxis is rarely serious. Posterior epistaxis, on the other hand, is more frequent in the elderly, and they can be a major therapeutic problem.

Table 1.		
Causes of Epistaxis	Male	Female
Idiopathic	26%	20%
Trauma	5%	4%
DNS	1%	1.5%
Septal perforation	1%	0%
Rhinolith	0.8%	0%
Bleeding Polyposis	0.8%	1.6%
Hypertension	3.5%	1.5%





Figure 2. Bleeding Polyp.

AIMS OF THE STUDY

- 1. To find out the most common aetiology.
- 2. Prevalence of epistaxis in each sex / age groups.
- 3. For early identification of the cause and thereby early management

METHODS

A prospective study done at upgraded Institute of Otorhinolaryngology, SMGS,GMC, Jammu during September 2017 to September 2018 on patients above 12 years who reported with history of bleeding through the nose were examined and full head and neck examination done after elaborating detailed history on 60 patients.

ENT examination was done to identify whether anterior or posterior bleeding and to identify the bleeding source.

If bleeding was severe, anterior nasal packing and posterior nasal packing if necessary was done and all patients were admitted in the ward. Complete blood investigations and other relevant investigations like diagnostic nasal endoscopy with 0 and 30 degree scopes with topical 4% local anaesthesia with decongestant, X ray, PNS/Chest, CTPNS, ECG are done for admitted patients. For the patients for whom no active bleeding or source identified at the time of examination were advised relevant investigations, treatment and follow up, while for active bleed packing was done using either Vaseline pack/ Merocel pack/ post nasal pack / Foley's catheter.



Figure 3. Ct Scan Nose and Pns Showing Dns with Sinusitis with Turbina Hypertrophy both Sides with *Choncha Bullosa*.



Figure 4. Rhinolith Right Nasal Cavity.

Inclusion criteria

Inclusion criteria were age group above 12 years, history of bleeding through the nose. **Exclusion criteria**

Exclusion criteria were age below 12 years, patients who are not willing for study, traumatic epistaxis with poly trauma was excluded to give attention to immediate care of the patient to rule out and treat injury to other vital structures, patients with life threatening emergencies (i.e. myocardial infarction etc.)

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RESULTS

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Age group	Males	Females
13-20	Idiopathic	Idiopathic
21-30	Idiopathic	Idiopathic/trauma/DNS,
		Sinusitis
31-40	Idiopathic, trauma	Idiopathic/sinusitis
41-50	Idiopathic, Hypertension	Polyps/Malignancy
51-60	Malignancy/ Idiopathic	Hypertension/ Idiopathic
61-70	Malignancy/ Idiopathic	Hypertension/ Idiopathic

Table 2. Age group epistasis with common cause in male and females.

Table 3. Male and Female patients of epistasis with age wise distribution.

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Age Group	Male	Female	Total
13-20	8	6	14
21-30	8	8	16
31-40	5	3	8
41-50	6	3	9
51-60	6	5	11
61-70	2	2	4

Table 4. Number of males and Females in Study group.

		50	
S. No	Sex	No. of patients	Percentage
1	Male	35	58%
2	Female	25	42%
	Total	60	

Table 5. Nature of bleeding.

Anterior Bleeding	37
Posterior Bleeding	17
Anterior+ Posterior Bleeding	6

Table 6. Conservative treatment given for epistaxis:

Nasal packing	No's
Anterior packing	42
Anterior + posterior packing	7
observation	11

Table 7. Surgical treatment for epistaxis:

Causes	Treatment	No's
Chronic Sinusitis	FESS	2
DNS with chronic sinusitis	FESS with SMR	5
Sino nasal polyposis	Endoscopic Polypectomy	6
Rhinolith	Endoscopic excision	1
Rhinosporidiosis	Endoscopic excision	3

DISCUSSION

Epistaxis- bleeding through the nose is one of the most common and most difficult emergencies to treat. About 60% of people experience the episode at least once in life time with less than 10% of this requiring medical attention. 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. In the present study, 60 cases were studied from the outpatient department and wards of the Upgraded Institute of Otorhinolaryngology of SMGS, GMC Jammu.

In the present study (Table 2 and 3) more commonly affected age group are 21 to 30, 13 to 20. Next commonly affected age group is 51 to 60 and then 41 to 50. Shaheen showed in his study of age distribution of epistaxis an increase in frequency between ages 15 - 25 years and 45 - 65 years and this present study more or less correlates with that (O'Donnell et al., 1999). JNA occurs exclusively in adolescent males and this study also proves this sex. Epistaxis is more common in males than females (Table 4) and this study which correlates with studies of Juselius, (Juselius, 1974). In the present study (Table 5) most cases were anterior nasal bleeds and were managed conservatively with anterior nasal packing similar to study by (Juselius, 1974 and O' Donnel et al. 1999). Most cases were treated conservatively with anterior nasal packing (Table 6) (42 patients), some cases whom were without active bleeding during admission were observed (11patients) and some cases were treated with anterior and posterior nasal packing (7 patients). Endoscopic cauterization of suspected bleeding point was done to one patient and endoscopic cauterization of granulation tissue of septum was done to one patient. Endoscopic sphenopalatine artery ligation was done to one patient. Septal heamangioma and bleeding polyposis were treated endoscopically. Other conditions like DNS, chronic sinusitis, rhinosporidiosis, nasal bone fracture, JNA, benign and malignant conditions were treated accordingly (Table 7). The endoscopy helps to identify bleeding points and to treat them effectively. Recurrent bleeding was seen in eleven patients whom were controlled with conservative measures. Both previous episode and present episode were treated with anterior nasal packing.

CONCLUSION

In our study idiopathic is the most common cause of epistaxis (41%), other causes are trauma (8.33%), DNS with spurs and sinusitis (9%) and JNA in adolescent males. Males (60%) are commonly affected than females (40%). The most common age group affected is 13 to 30 years (50.83%) and 41 to 60 years (31.67%). Most cases are treated by conservative measures. In older age groups radiological investigation is needed to rule out any malignancy.

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