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A study on epistaxis in adults: a series of 120 cases

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ABSTRACT

Background: Epistaxis is a symptom of many diverse conditions. This study on epistaxis of 120 cases in adults, is to find out the most common causes for epistaxis, prevalence of epistaxis in either sex, age groups and for early identification of cause and management. Results were analysed.
Methods: Prospective study of series 120 cases in adults.
Results: Results were analysed and idiopathic was most common cause of epistaxis, males were more affected than females, and the most common age group affected is 13 to 30 years. Most cases are treated by conservative measures.
Conclusions: Idiopathic is the most common cause of epistaxis in this present study. Other causes are trauma, DNS with spurs, sinusitis and JNA in adolescent males. Males are commonly affected than females .The most common age group affected is 13 to 30 years and 41 to 60 years. Most cases are treated by conservative measures.

Keywords: Adult, Epistaxis, Aetiology, Management

INTRODUCTION

Bleeding from nose is a common condition in ENT practice. Almost 60% of population, at some point of their life experience epistaxis and 6% need medical attention.[1]

Nasal bleeding has been traditionally attributed to hot weather, but different studies reveal different seasonal variation.[2,3]

Epistaxis is a symptom of many diverse conditions. Epistaxis can have an anterior or posterior source and can be from septum or lateral nasal wall. Intractable epistaxis remains a challenge for otorhinolaryngologists. Historically, internal maxillary artery ligation via a transantral approach and ligation of the ethmoidal vessels and the external carotid artery have been the treatment of choice when conservative management fails.[4]

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, Government General Hospital, Madras Medical College, Chennai during September 2008 to September 2009 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 120 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.

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.)

RESULTS

Table 1: Aetiology of epistaxis.

Aetiology	% of male	% of female
Idiopathic	25.83	20.83
Trauma / RTA	5	3.33
DNS/ spur	0.83	1.67
Chronic sinusitis/DNS	1.67	2.5
JNA / Rec. JNA	7.5	0
Rhinosporidiosis	2.5	0
Polyps/sinonasal polyposis	0	2.5
Septal perforation	0.83	0
Rhinolith	0.83	0
Malignant growth maxilla	4.17	0.83
Bleeding polyposis	0.83	1.67
Chronic sinusitis	0	1.67
DNS	0.83	1.67
Granulation tissue septum	0.83	0
Hypertensive	3.33	1.67
Benign mass/Inv. Papilloma	0	1.67
Haemangioma	0.83	0
Iatrogenic	1.67	0
Coagulation deficits	2.5	0

DNS- Deviated nasal septum, JNA- Juvenile nasopharyngeal angiofibroma.

Aetiology of epistaxis

The most common cause in this study is idiopathic (46.67%). Other causes noted are trauma (8.33%), DNS with Spur and sinusitis (10.84%), polyps (5%), benign (1.76%) and malignant (5%) growth. Hypertension, rhinosporidiosis, hematological causes are noted. Haemangioma, rhinolith, septal perforation and iatrogenic causes have also been noted. JNA has been noted exclusively in adolescent males.

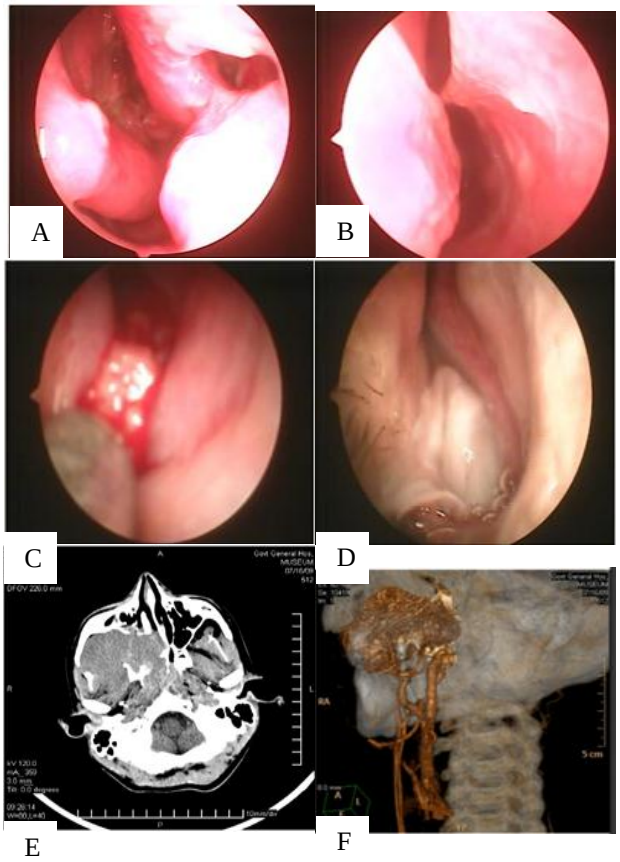

Figure 1: Anterior nasal bleed

(A=Septal perforation, B= Septal Spur, C=Rhinosporidosis, D= Inverted Papilloma, E=Axial CT – JNA, F= CT- Angiogram of JNA).

Table 2: Age group of epistaxis with common causes in males and females.

Age Group	Males	Females
13 – 20	JNA / 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	-

Table 3: Male and female patients of epistaxis with age wise distribution.

Age group	Male	Female	Total
13 – 20	17	11	28
21 – 30	17	16	33
31 – 40	10	7	17
41 – 50	13	5	18
51 – 60	11	9	20
61 - 70	4	0	4

Table 4: Number of males and females in study group.

S. no	Sex	No of patient	%
1	Male	72	60
2	Female	48	40
	Total	120	100

Table 5: Nature of bleeding.

Anterior bleeding	75
Posterior bleeding	33
Ant + post bleeding	12

Table 6: Conservative Treatment given for epistaxis.

Nasal packing	No's
Anterior packing	85
Ant + post packing	14
Observation	21

Table 7: Surgical treatment for epistaxis.

Causes	Treatment	No's
Chronic sinusitis	FESS	2
DNS with chronic sinusitis	FESS with SMR	5
DNS	SMR	3
DNS with concha	SMR with conchaplasty	3
JNA	Endoscopic excision	8
JNA	Excision – Transantral	1
Rhinosporidiosis	Endoscopic excision	3
Septal haemangioma	Endoscopic excision	1
Papilloma	Endoscopic excision	1
Sinonasal polyposis	Endoscopic polypectomy	6
Rhinolith	Endoscopic excision	1
Malignancy - maxilla	Total Maxillectomy	2
Malignancy – maxilla	Medical Maxillectomy / Endoscopic debulking	1 + 1
Malignancy – maxilla	Radio therapy	2
Fracture nasal bone	Reduction	7

The most common cause of epistaxis in this study is idiopathic (46.67%), in both sexes. (Male 25.83%, Female 20.83%) other common causes in this study are trauma (8.33%), DNS with chronic rhinosinusitis and DNS with spur (10.84%) and polyps (5%).

JNA is exclusively noted in second decade males, malignancy (5%) and hypertension has been noted in older age group. Trauma has been noted mainly in 13 to 30 age group.

Most of the patients were treated conservatively Anterior nasal packing was done to 85 patients and anterior and postnasal packing was done to 14 patients. 21 patients without active bleed during admission were kept under observation. Endoscopic sphenopalatine artery ligation was done to one patient and endoscopic cauterization of bleeding point and endoscopic cauterization of granulation tissue was done to two patients.

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, 120 cases were studied from the outpatient department and wards of the Upgraded Institute of Otorhinolaryngology of Madras Medical College and Government General Hospital Chennai.

In this study (Table 1) most cases were due to idiopathic cause (46.67%), while idiopathic, spontaneous bleeds without any proven precipitant or causal factor were the causes for epistaxis correlating with study by Stell and Shaheen.[5,6]

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.[6]

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.[7]

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 and O' Donnel et al.[7,8]

Most cases were treated conservatively with anterior nasal packing (Table 6) (85 patients), some cases whom were without active bleeding during admission were observed (21 patients) and some cases were treated with anterior and posterior nasal packing (14 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 (46.67%), other causes are trauma (8.33%), DNS with spurs and sinusitis (10.84%) 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. This series of 120 cases stands as a reference in our geographical area which will help the further researchers identify the causes and management of epistaxis region wise.

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