



Clinical Profile of Idiopathic Epistaxis in a Hospital

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ABSTRACT

Introduction: Epistaxis is a common otolaryngological emergency but most of the cases are idiopathic. This study was done to assess clinical profile in patients with idiopathic epistaxis.

Methods: Patients presenting in ENT outpatient department or emergency with epistaxis and no definite cause were selected. Patients demographic data, present and past history was recorded. All patients underwent anterior rhinoscopy and rigid nasal endoscopy.

Results: There were 142 patients with epistaxis without definite cause. Age ranged from 11 to 84 years with mean 32.8 years. Approximately two-third were male. Bleeding from right side was seen in 64 (45.0%) patients. Past history of bleeding was given by 79 (55.6%) patients and out of them 60 (75.9) % had bleeding from same side. Presentation was mostly in months of January to March. Bleeding point was seen in 65 patients. Most of them (37/65) was in Little's area. Deviated nasal septum was seen in 102 patients. More than half of patients with unilateral bleeding were having bleeding from convex side of deviation. Blood pressure was found to be equal or more than 140/90 mm Hg in 55 (38.7%) patients at the time of presentation. Antihypertensive was required in less than half of these patients.

Conclusion: Idiopathic epistaxis is common in male, in winter season and in right side and from nasal septum. Hypertension may be found at presentation but most of them don't need antihypertensive.

Keywords: *deviated nasal septum; epistaxis; hypertension.*

INTRODUCTION

Epistaxis is a common symptom due to local or systemic conditions but with no identifiable cause in most cases. Management is done by looking for a specific cause, find out bleeding point and stop that bleeder by cauterization or pressure.

Epistaxis accounts for about 1 in 200 emergency visits in the United States¹ and incidence is not defined in most countries.² Epistaxis is very common in Nepal also but there has not been a single study from Nepal that enrolls idiopathic cases only. The cause differs

according to age. Hypertension (HTN) has frequently been cited as a general risk factor for epistaxis. Severity of HTN and a history of epistaxis were not associated in a cohort of hypertensive patients.³

This study was designed to assess clinical profile in patients with idiopathic epistaxis and find out any relation with patient demographics and co-morbidities.

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METHODS

A cross-sectional descriptive study was carried out in department of ENT, Nepalgunj Medical College from Jan 2012 to Dec 2012, after approval from ethical committee. Patients presenting in ENT OPD or emergency with epistaxis were selected. Informed consent was taken from patients selected. History regarding trauma in face and nose, nasal surgery, bleeding disorder, common cold, and use of drugs that can affect coagulation was asked. All patients underwent anterior rhinoscopy with suctioning of blood if required. If bleeding was not profuse they underwent nasal endoscopy to rule out local lesions like nasal or nasopharyngeal mass, foreign body, signs of infection, etc. All patient who didn't have significant positive history or signs of local disease underwent haematological investigations (Total and differential WBC count, Haemoglobin, Platelets, Bleeding and clotting time, PT/INR, aPTT), biochemical investigations (Liver function test, Urea, Creatinine, blood sugar). If still no positive finding was obtained they were referred to Paediatrician or General physician and Cardiologist to rule out cardiac or other systemic cause. If still no cause was found then they were labeled as "idiopathic" and were included in study.

Patients included in study were admitted. Patient refusing hospital admission was excluded. Patients demographic data, present and past history was recorded. Pulse and blood pressure at the time of presentation and then every 6 hourly was recorded. Antihypertensive was given to known hypertensive under medications and new patients who were advised by cardiologist. Side and site of bleeding and deviation of nasal septum was noted.

Appropriate measures to control bleeding were carried out. Those patients who need packing to control bleeding underwent nasal endoscopy after removal of pack to rule out local lesion. Patient who were referred to other hospital were excluded from study.

RESULTS

One hundred forty two patients met the inclusion criteria. Age ranged from 11 to 84 years with mean 32.8 years. There were 92 (64.7%) male patient and 50 (35.2%) female patients. Bleeding from right side was presented by 64 (45.0%) patients while only 45 (31.7%) had bleeding from left side. Bilateral nasal bleeding was seen in 33 patients in this study (Figure 1).

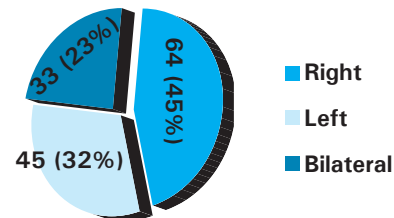


Figure 1. Side of bleeding.

Past history of bleeding was given by 79 (55.6%) patients and out of them 60 (75.9%) had bleeding from same side. Twenty five patients give history of nasal trauma in past (more than 1 month back). History of alcohol intake within 48 hours of onset of bleeding was given by 45 (31.7%) patients. Presentation was mostly in months of January to March (Figure 2).

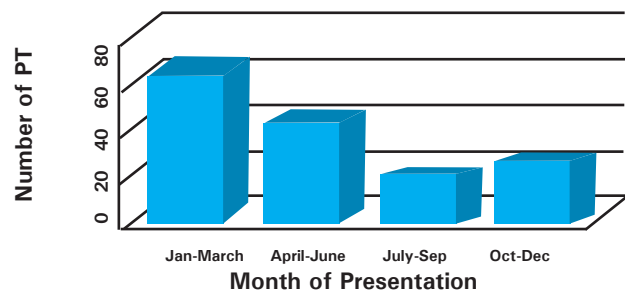


Figure 2. Frequency of patients in different months.

Bleeding point was seen in 65 patients. Most of them (37/65) was in Little's area and 12 patient had bleeding from spur and ten had bleeding from retrocolumnar vein. Four had bleeding from posterior septum while two had bleeding from lateral wall (Figure 3).

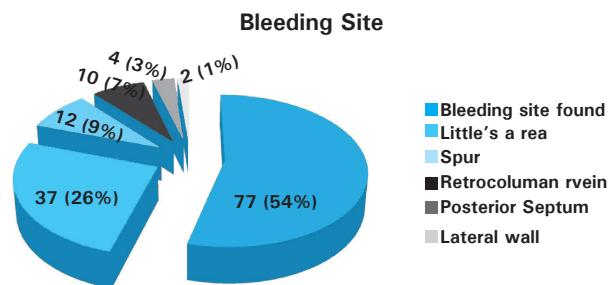


Figure 3. Different Bleeding sites.

Deviated nasal septum was seen in 112 (78.8%) patients. Out of 109 patients with unilateral bleeding, 65 (59.6%) patients had bleeding from convex side

of deviation or from side with septal spur (Table 1). Nineteen (17.4%) had bleeding from concave side. Fifteen patients had no septal deviation and 10 had "S" shaped deviation. Comorbidity to increase congestion like constipation, dysuria, and cough was seen in 20 patients.

Table 1. Deviated Nasal septum and laterality of bleeding.

Septal deformity	Bleeding Side			Total
	Right	Left	Bilateral	
Deviation or spur to Right	37	7	5	49
Deviation or spur to Left	12	28	7	47
"S" shaped deviation or bilateral spur	6	4	6	16
No Deviation or spur	9	6	15	30
Total	64	45	33	142

Blood pressure was found to be equal or more than 140/90mmHg in 55 (38.7%) patients at the time of presentation. Most of them were not known hypertensive and only 15 were aware of hypertension in past and under medication. There were 10 known hypertensive patients under medication who had normal blood pressure at presentation. Out of 40 patients with raised blood pressure at presentation, only 19 (47.5%) had requirement of antihypertensive after cardiac consultation.

DISCUSSION

Epistaxis is common in all age groups. Common cause is different in different age group. Common local causes for epistaxis are trauma, infections of nasal cavity and paranasal sinuses, foreign body, neoplasm, etc. Systemic causes are bleeding disorder, febrile illness in children, liver diseases or renal failure, cardiac diseases.

Incidence of epistaxis is difficult to estimate and on top of that proportion of idiopathic one is different in different study. It depends on the battery of investigations done before labeling as idiopathic which differs according to center. With advancement of diagnostic modalities this proportion is changing. Hence study by Pinoet al⁴ from Spain found only 20% idiopathic epistaxis while older study by Stell⁵ from England found higher proportion.

Mean age of presentation is 32.8 years i.e most of

them are in middle age group. Similar finding was obtained by Akinpelu,⁶ while in some studies^{2,7} most of the patients were >50years. Pallin¹ said bimodal presentation (<10years and >70 years) but all of these study included epistaxis with known causes also. We know that infection in children and trauma in adult are common causes but after exclusion of specific causes, the mean age has not been described in other studies.

In our study there were 92 male patients and 50 female patients. Male predominance is supported by many studies.^{2,6-9} Possible explanation is hormonal. Oestrogen in female provides protection to the nasal vasculature as they do to other areas of the vascular tree.^{10,11}

Unilateral bleeding being more common is also supported by Razdan.¹² We were thinking initially that as they are idiopathic, we would have more bilateral bleeding. Unilateral predominance signifies probability of local causes in such "idiopathic epistaxis". Bleeding from right side was seen in most of the patients. This was also observed in other study.¹³ Possible explanation is that most of the patients are right handed and unknowing finger nail trauma to right little's area may be responsible to it.

Alcohol intake within 48hours of onset of bleeding is interesting yet not much highlighted aspect of idiopathic epistaxis. The use of alcohol by epistaxis patients is associated with prolongation of bleeding time despite normal platelet counts and coagulation factor activity.¹⁴ These effects, coupled with haemodynamic changes such as vasodilatation and changes in blood pressure, may be important in causing some cases of arterial nose bleeds in adults.^{15,16} Approximately one third of patients taking alcohol before onset of epistaxis could a precipitating factor if not causative. For better elaboration on this topic we need a case control study.

Presentation was mostly in months of January to March. This is in correlation with most of the studies.^{1,7,17,18} The change in humidity during this season making environment dry may be responsible. As we have chapped lips in these seasons similarly we have dry nasal cavity and especially little's area. But seasonal preponderance was not seen Bray¹⁹ study (n = 1373) making this a debatable topic. The effect of season in different geography may be different.

Most of the bleeding was from septum is correlating with McGarry¹⁴ where 70% were from septum.

There is no clear case –control evidence of an association between septal abnormalities and adult epistaxis.¹⁴ Due to high prevalence of septal deviation, the perceived association of epistaxis and septal abnormalities could

be coincidental. But more than half of patient having bleeding from convex side of septum or with spur says that idiopathic epistaxis may be related to drying effect of atmospheric air due to turbulence of flow or of vessel abnormalities in septal abnormalities.

Hypertension (BP > 140/90mmHg) at presentation was seen in 55 (38.7%) patients but only 19 (47.5%) had requirement of medication after cardiac consultation. Hence new hypertensive diagnosed from epistaxis presentation was 19 (13.3%) while other 25 (17.6%) were taking antihypertensive already. Similar finding is also obtained in Vaamonde study⁸ where 22.9% had hypertension. Increased blood pressure at presentation may be due to apprehensive and tensed patient when they see blood. Hypertension has long been considered a cause of epistaxis. However, a number of large studies have failed to show a causal relationship between hypertension and epistaxis.¹⁴

Most of the other studies compared include epistaxis with definite cause also. There is need of a case control study to find out association of comorbidities, hypertension and deviated nasal septum with idiopathic epistaxis. Before labeling as idiopathic we should have ideally done CT scan nose and paranasal sinuses. But it

is expensive and not all patients can afford. Moreover when we see bleeding point right in front of us and stopped using simple measure there is no point in doing CT scan.

CONCLUSIONS

Idiopathic epistaxis is most common in male in winter season and in right side and from nasal septum.

Hypertension may be found at presentation but most of them don't need antihypertensive. So before starting medications for hypertension it is worthy to observe patient for few days. A case control study is required to correlate association of septal deformity with side of bleeding.

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