

Pattern of Epistaxis of Patients Attending in A Tertiary Care Hospital of Tripura, Northeastern Region of India

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Abstract: Epistaxis is one of the most frequently encountered emergencies reported to occur in up to 60% of the general population. It has a bimodal age presentation with incidence peaks in below 25 years and above 50 years of age and affects males twice more than females. The Kiesselbach's plexus is responsible for most anterior epistaxis accounting for 85 to 95%, but easy to identify and treat. Posterior epistaxis which constitute 5 to 15% are often more severe, difficult to locate and treat. Sixty patients (15-76years of age) presented with bleeding per nose were enrolled in our study from August 2014-August 2015 at Dept of ENT, where, a total of sixty patients with unilateral and bilateral nasal bleeding were enrolled in the study. Majority of this study group were male, forty two (70%) and eighteen were female (30%), thirty two patients (53.3%) had hypertension, seventeen patients (28.3%) had epistaxis following injury of nose and paranasal sinus area.

Keywords: angiofibroma, epistaxis, hypertension, road traffic accident, idiopathic

I. Introduction

Epistaxis is one of the most frequently encountered emergencies, reported to occur in up to 60% of the general population.^{1,2} It has a bimodal age presentation with incidence peaks in below 25 years and above 50 years of age and affects males twice more than females.³ The cause of epistaxis includes environmental, local and systemic factors.⁴ Local causes include inflammatory, infective, traumatic, anatomical (deviated nasal septum, septal spur), chemical, or climatic changes, neoplasm, and foreign body and the systemic causes of epistaxis are hematological diseases causing coagulopathy, cardiovascular diseases such as hypertension and vascular heart disease, liver disease, renal disease, and anticoagulant drugs.⁵ Epistaxis is said to be commoner in the cold winter and during the hot dry climate. The Kiesselbach's plexus is responsible for most anterior epistaxis accounting for 85 to 95% and posterior epistaxis which constitute 5 to 15% are often more severe, difficult to locate and treat.⁶ Epistaxis can be classified into anterior and posterior bleeds, the former being commoner.⁷ Various treatment methods available for the management ranges from local pressure, topical vasoconstrictor, nasal packing, cauterization (chemical/ electric), to embolisation or ligation of vessels.⁸ The aim of this study is to analyze the patients with pattern epistaxis in terms of various etiological factors who required hospitalization.

II. Materials And Methods

Sixty patients (15-76years of age) who presented with bleeding per nose (epistaxis) were enrolled in this retrospective study from August 2014-August 2015 at Dept of ENT, Tripura medical college and Dr. B.R.A.M Teaching hospital, Hapania, Agartala. Routine investigations like Blood examination, bleeding time, clotting time, chest x ray, X-ray PNS, liver function tests, kidney function tests, urine routine examination were undertaken. Nasal endoscopic evaluation was done in all patients. NCCT PNS were done in all cases of road traffic accidents, and in few of the other cases. In two patients, prothrombin time and INR were evaluated. A history of aspirin intake was found in one of the patients. Constant monitoring of B.P. and pulse were undertaken. Data collected were analysed by using SPSS software version 22.

III. Results

A total of sixty patients with unilateral and bilateral nasal bleeding were enrolled in the study. The age of the subjects ranged from 15-76 years. Majority of this study group were male, forty two (70%) and eighteen were female (30%), thirty two patients (53.3%) had hypertension, seventeen patients (28.3%) had epistaxis following injury of nose and paranasal sinus area where major cause of trauma were due to road traffic

accidents, six cases (10%) of deviated nasal septum with spur, three cases (5%) of unknown etiology and one case each (1.6%) with nasopharyngeal angiofibroma and patient with known history of aspirin therapy due to coronary artery disease. Anterior nasal bleeding was noted in majority of the cases, 52(86.6%).

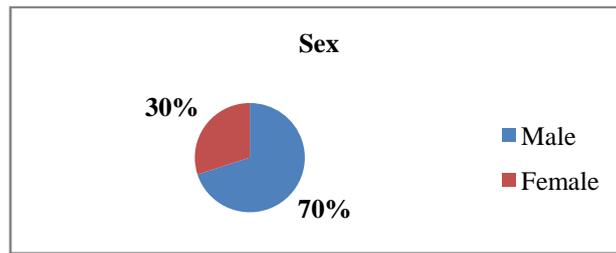


Fig 1. Pie chart showing sex wise distribution of study group.

Table 1. Showing age group wise distribution of study group

Age group	Number (N)	Percentage (%)
15-25	15	25%
26-50	28	46.6%
51-76	17	28.3%

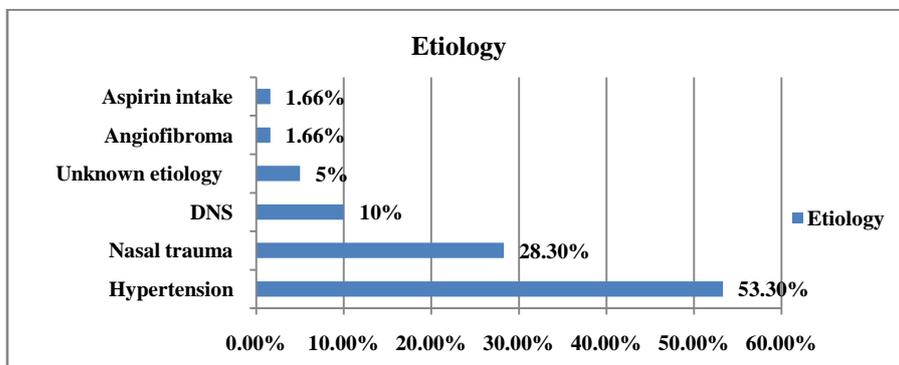


Fig 2. Bar chart showing etiology wise distribution of study group.

IV. Discussion

Patient presenting with epistaxis is frequently encountered in our daily practices. It is common in people of all ages. According to the site epistaxis may be divided into anterior and posterior. Anterior epistaxis occurs more frequently in children and young adults and its origin is usually Kiesselbach's plexus or occasionally retrocolumellar vein. Posterior epistaxis occurs predominantly in the elderly and the site of bleeding is difficult to access as the site of origin is located more posteriorly so it poses a great challenge to arrest bleeding. In the study, age range of patients varied from 15 to 76 years. Males were affected more often than females with a ratio of 1.6. Similar findings have been noted in other studies^[9, 10]. This may be because the males are more frequently involved in outdoor activities such as sports and interpersonal violence. Hanif M et al. in their study on 205 patients concluded that hypertension (48%) in old age, trauma (37%) and upper respiratory tract infection (14%) in young adults and children are the common causes of epistaxis.¹¹ This study also noted that hypertension (3.3%) is the most common cause of epistaxis followed by trauma (28.3%) and other causes. Iseh KR et al. found that the commonest cause of epistaxis is idiopathic (29.2%), followed by trauma (27.8%) and hypertension (18%) in a study of 72 cases.¹² In this study idiopathic cause (5%) was very less which may be due to advanced diagnostic tool and meticulous examination of each and every case of epistaxis in our hospital, specially routine endoscopic examination responsible for it. Many national and international studies have shown hypertension as a common cause of epistaxis.^{11,12} Hypertension is frequently associated with posterior epistaxis.¹³ The elevated pressure, which disrupts thrombus formation, and the diminished constrictive ability of atherosclerotic vessels compromise the hemostasis. Some of our hypertensive patients with epistaxis were found to have uncontrolled hypertension due to cessation of antihypertensive medications and inadequate drug therapy because of infrequent check-up; hence the need of regular blood

pressure check-up and compliance to the antihypertensive medications should be emphasized. Trauma (28.3%) is the second most common cause of epistaxis in this study group where the severity of trauma varied from trivial injury such as digital trauma to nasal bone fracture resulting from road traffic accident, physical assault, and sports. In 1 patient (1.66%) cause of epistaxis was nasal and nasopharyngeal tumours. The most common tumour which presents with recurrent epistaxis is juvenile nasopharyngeal angiofibroma.¹⁴ In juvenile nasopharyngeal angiofibroma the patient presents with recurrent epistaxis and nasal blockage with intranasal mass.¹⁵

V. Conclusion

Hypertension and road traffic accident was the most common cause of epistaxis in our study group followed by other causes like deviated nasal septum with spur and idiopathic cause. Juvenile nasopharyngeal angiofibroma and aspirin intake was the rare cause of epistaxis. Since hypertension is the most common cause of epistaxis and which was due to history of irregular intake of antihypertensive medication so special attention to be needed for regular follow up of hypertensive patients. Since in this study road traffic accident is the second most common cause of epistaxis in our setup, therefore, the management of traumatic epistaxis should be focused and follow the guidelines.

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