Aetiological Incidence of Epistaxis in Various Age Groups and Sex at Mayo Hospital, Lahore

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This study was done on sixty patients who presented with epistaxis. Purpose was to know the aetiology of epistaxis in individuals of various age groups and sex managed at Mayo Hospital, Lahore. Most of the patients who presented with epistaxis were males (66.33%) while 31.66% were females. The maximum number of patients (22.33%) were in the age group 11-20 years. Accidental trauma was found to be the most common cause (28.33%) of epistaxis.
Key words: Epistaxis, nose, nasopharynx.

Epistaxis is a common problem. Apart from its causes in the nose and paranasal sinuses or nasopharynx, it is an important manifestation of a large number of general medical and surgical diseases. It is common all over the world, and about 60% individuals report at least one episode of epistaxis during their life time[1].

Nose is the protruding structure on the face. It is easily prone to trauma. The blood vessels in the mucous membrane may rupture leading to epistaxis. The blood vessels of nasal septum are loosely arranged in scanty submucosa against a hard background of cartilage and bone. The amount of blood loss may be very small or large according to the number of blood vessels which are damaged.

Epistaxis is considered to be an emergency in the field of otorhinolaryngology. Most of the cases occur in children and young adults. Mild and repeated nose bleed leads to gradual loss of blood, leading to hypochromic, microcytic anemia. If the bleeding is not controlled properly and in time, it may prove fatal. Severe and spontaneous nasal bleeding frightens the children and upsets the adults psychologically. The children as compared to adults have a relatively small blood volume. So they are more prone to develop hypovolemic shock. Therefore, the epistaxis in children should be managed more energetically. Severe or life threatening epistaxis seems to increase as there is increase in age.

Patients and Methods

The study was carried out on 60 patients who presented to the department of ENT Unit-II, Mayo Hospital, Lahore with the complaint of epistaxis. The period of study extends from January 1st, 1998 to June 30th, 1998. Cases were admitted through outdoor as well as through emergency. Complete case histories, management and follow up were recorded in a detailed proforma. The detailed information such as age, sex provocative cause, family history, previous history and social history were obtained. Each patient treated underwent a detailed examination of ear, nose and throat as well as a more general medical and physical examination including recording of blood pressure. Routine investigations included the complete blood count, haemoglobin estimation and bleeding time and coagulation time. X-ray of chest, paranasal sinuses and postnasal space were requested whenever necessary. Erythrocyte sedimentation rate, blood urea, blood glucose and platelets count were estimated in relevant patients. Further assessment of haemostatic status in bleeding disorders was made by prothrombin time, partial thromboplastine time, coagulation factor analysis and bone marrow examination. Blood grouping and other investigations were carried out when appropriate.

Results

Sixty consecutive cases of epistaxis were included in this study. The age range of patients was from birth upto 80 years and above.

Age distribution of these cases is given in Table 1. The maximum number of patients (50%) were received between the 11-30 years age group. Out of the 60 patients, 41(68.33%) were male and the remaining 19(31.66%) were female. This clearly shows that epistaxis is mainly a problem of male sex. Sex distribution of these cases is shown in Table 2. Accidental trauma was found to be the most common cause (28.33%) epistaxis. Table 3 shows the various causes of epistaxis found in this study.

Table 1: Age distribution of 60 patients with epistaxis

Age group	n=	%age
1-10	2	3.33
11-20	17	28.33
21-30	13	21.66
31-40	4	6.66
41-50	5	8.33
51-60	8	13.33
61-70	9	15.00
71-80	2	3.33

Table 2. Sex distribution of 60 patients with epistaxis

Sex	n=	%age
Male	41	68.33
Female	19	31.66
Total	60	100

Table 3. Causes of epistaxis in 60 patients

Causes	n=	%age
Trauma	17	28.33
Inflammatory disease of nose and sinuses or infective fevers	10	16.66
Hypertension	9	15.00
Tumours	5	8.33
Nose picking	4	6.66
Bleeding disorders	3	5.00
Maggots	3	5.00
Uremia	2	3.33
Septal haemangioma	2	3.33
Allergic rhinitis	1	1.66
Nose ulcer	1	1.66
Septal perforation	1	1.66
Post SMR secondary bleeding	1	1.66
Drug induced	1	1.66
Total	60	100.00

Discussion

In this study it was found that epistaxis in 45 patients was due to local causes in the nose and structures closely related to the nasal cavity i.e. paranasal sinuses, nasopharynx and cranium. Kouskoukis and Hutcher (1982) have mentioned that local causes of epistaxis lie in the nose and structures closely related to the nasal cavity[2].

In this study it was found that accidental trauma is the most common cause of epistaxis. In literature it is mentioned that trauma is the most common cause of epistaxis[3]. However some other studies have given different results. For example Holger (1974) have described that cardiovascular factors are more important in the causation of epistaxis[4]. In the present study 17 patients (28.33%) were found to have epistaxis due to accidental trauma. Four patients (6.66%) were found to have epistaxis due to nose picking. Nose picking is done as a habit or a necessity to remove crusts from nose and may cause ulceration or even septal perforation[5]. One patient (1.66%) was found to have bleeding from the margins of a septal perforation. One patient (1.66%) was found to have epistaxis due to ulceration on the nasal septum. In the literature it is mentioned that chronic septal ulcers are attended with crusting and nose picking leads to bleeding[3]. Ten patients (16.66%) were found to have epistaxis due to inflammatory diseases of nose and sinuses or infective fevers. Inflammatory diseases of nose, sinuses and nasopharynx can lead to epistaxis[6]. Five patients (8.33%) were found to have epistaxis due to tumours arising from nose, paranasal sinuses or nasopharynx. The cause of epistaxis in three cases was nasopharyngeal angiofibroma and epistaxis in the other two cases was due to malignant tumours of nose and paranasal sinus. Nasopharyngeal angiofibroma can lead to epistaxis and frequent, recurrent and profuse bleeding is major complaint[7,3]. Three patients (5%) were found to have epistaxis due to maggots in the nose. Flies are very common in our country, particularly in rural areas. Flies lay their eggs in the nose from which larvae (maggots) are formed. In this study septal haemangioma was found to be the cause of epistaxis in two cases (3.33%). They are probably not true tumours but vascular malformations[8].

Bleeding may occur in atopic individuals. In this study, the allergic rhinitis and nasal polyps was found to be the cause of epistaxis in 1.66% patients. The antrochoanal polyps rarely present with severe epistaxis[9]. Allergy and nasal polyps lead to epistaxis[3].

Secondary haemorrhage may occur after nasal surgery. Such haemorrhage usually occurs 5-10 days after the surgery. In this study only one patient (1.66%) was seen to be having epistaxis after SMR operation.

In this study, in 9 cases (15%) the cause of epistaxis was found to be hypertension. Hypertension usually occurs in persons over the 40 years of age. The association of epistaxis with hypertension in this study correlates with the studies of Key (1981) and Monux (1990) who described that hypertension plays an important role in causing epistaxis[10,1].

The bleeding disorders such as hemophilia and thrombocytopenic purpura may also lead to epistaxis. Epistaxis is also an important symptom of uremic patients.

References

1. Monux A, Tomas M: The journal of laryngology and otology, 1990; 104: 868-70.
2. Kouskoukis CE and Hutcher VA: Recurrent epistaxis and growth on lips and nose. Hosp., Prac. (Off.) 1982; 17(7): 40-41.
3. Gary D. Josephson et al: Medical clinics of North America, 1991; 75(6): 1311-20.
4. Holger J: A clinical study of epistaxis. J Otolaryngol 1974; 88: 317.
5. Deweese DD and Saunders WH (Eds): Textbook of otolaryngology. 5th ed. C.V. Mosby Co. 1977.
6. Fujisaki K et al: Choanal bleeding due to nasopharyngitis. Auris Nasus Larynx 1986; 13(3): 169-76.
7. Zaidi SH and Jafri IH: Juvenile nasopharyngeal angiofibroma. Pak J Otolaryngol 1987; 4:77-84.
8. Osborn DA: Nature and behaviour of transitional tumours in the upper respiratory tract. Cancer 25: 50-60, 1959.
9. Robson AK and Barker: The journal of laryngology and otology. 1990; Vol. 104: 643-644.
10. Key G: Stopping nose bleed in the elderly persons, packing or cautery. Giriatrics 1981; 36: 74-80.