ORIGINAL ARTICLE

Frequency of Hypertension in the Patients Presenting with Epistaxis in ENT Department, Nishtar Hospital, Multan

HASSAN IQBAL, SYED TAUSEEF BUKHARI, TEHSIN UL HASSAN

ABSTRACT

Objective: To determine the frequency of hypertension in patients presenting with epistaxis in ENT department, Nishtar Hospital, Multan.

Material and methods: The present study carried out in the Department of ENT, Nishtar Hospital, Multan during the period from March 2011 to September 2011. A total of 105 cases were calculated with 95% confidence level, 8% margin of error and taking expected percentage of Hypertension i.e. 22.36% in patients presenting with epistaxis.

Results: 105 patients with history of recurrent epistaxis were included in study, mean age was 45.89±5.90 years in cases, sixty three were males (60%) and forty two (40%) were famales (M:F=1.5:1) with Forty (38.09%) out of one hundred and five were found to have hypertension.

Conclusion: Hypertension is common in epistaxis.

Key words: Hypertension, Epistaxis.

INTRODUCTION

Epistaxis is a common problem, occurring in up to 60 percent of the general population[1]. While most episodes are uncomplicated, epistaxis can occasionally be difficult to control. Knowledge of the basic anatomy of the nasopharynx and a few hemostatic strategies are of good use in the management of acute hemorrhage.

Epistaxis represents a relatively common symptom in the hospitalary emergencies services (2%). It affects all age groups and both sexes. The cause may be local or systemic but in majority it is spontaneous and idiopathic (70%). Various protocols are utilized to control epistaxis depending upon type, severity and cause of bleeding[2]. Epistaxis occurs more commonly in summer when heated air-dries the nostrils[3]. Epistaxis may be due to local or systemic cause, most common local causes are nose picking, trauma nose, local infection, very hot. Repeated sneezing, surgery on face or nose and tumors of nose or paranasal sinuses are also significant.

Epistaxis may be the indication of some systemic medical disease. Urgent medical consultation is required in that case[4]. There are two types of epistaxis, anterior epistaxis (more common) and posterior epistaxis (less common and more severe)[5]. In a study Hypertension is common medical condition causing epistaxis i.e. 22.36%[2].

Association between hypertension and epistaxis is probably a myth. Although hypertension is common when patient presents which acute bleeding[6].

The incidence of undiagnosed hypertension found on follow up is no higher than would be expected in general population[7].

Hypertension (HTN) has frequently been cited as a general risk factor for epistaxis. However, studies dealing with this association have yielded equivocal results. In this study, a sample of 121 hypertensives (blood pressure ≥140/90mmHg) was selected to evaluate the association between the severity of HTN and a previous history of epistaxis. Patients with an average blood pressure ≥160/100 mmHg were classified as suffering from a more severe form of HTN and were compared with those with a less severe form of the disease (160/100mmHg ≤blood pressure ≥140/90mmHg). The frequency of epistaxis did not differ among patients categorized by the severity of HTN. Users of aspirin were found to be twice as likely to have a history of epistaxis. In addition, there was a statistical tendency for an association between a history of epistaxis and the duration of hypertension. We conclude that the severity of HTN and a history of epistaxis were not associated in a cohort of hypertensive patients. The identification of other risk factors for epistaxis, including the duration of HTN, deserves further study[8].

Nishtar Hospital, Multan is tertiary care centre. All cases of epistaxis are managed in ENT department. The fresh study on local level will be helpful to determine the frequency of Hypertension in epistaxis, once the magnitude is known, steps can be designed to evaluate and also put in mechanism for control so that complications can be prevented.

Department of ENT Nishtar Medical College and Hospital Multan

Correspondence to Dr. Hassan Iqbal, Associate Professor

MATERIAL AND METHODS

The present study carried out in ENT Deptt. Nishtar Hospital, Multan from March 2011 to September 2011. A total of 105 cases were calculated with 95% confidence level, 8% margin of error and taking expected percentage of Hypertension i.e. 22.36% in patients presenting with epistaxis.

RESULTS

Out of total 105 patients of epistaxis sixty three were males (60%) and (40%) were famales (M:F=1.5:1). Out of one hundred and five nineteen patients of epistaxis 19(18.1%) patients were between 35-40 years, 25(33.3%) patients were between 41-45 years, 28(26.7%) patients were between 46-50 years, while 12(11.4%) patients of epistaxis were between 51-55 years and 11(10.5%) were between 56-59 years **(**Table 1). Forty out of 105 were found to have hypertension (Table 2). The age distribution of patients in relation to Epistaxis was as follows; 2 were of age between 41-45 years. 17 were of age between 46-50 years.10 were of age between 51-55 years and 11 were of age between 56-59year (Table 3). Regarding gender distribution hypertension was present in 24(60%) male patients and 16(40%) female patients (Table-4).

Table 1: Age Distribution (n=105)

Age (years)	=n	%age
35 – 40	19	18.09
41 – 45	35	33.33
46 – 50	28	26.66
51 – 55	12	11.42
56 – 59	11	10.47

Table 2: Frequency of Hypertension (n=105)

Hypertension	=n	%age
Yes	40	38.09
No	65	61.90

Table-3: Age distribution of patients in relation to frequency of hypertension (n=40)

Age (years)	=n	%age
41 – 45	2	5
46 – 50	17	7.5
51 – 55	10	60
56 – 59	11	27.5

Table 4: Gender distribution of patients in relation to frequency of hypertension (n=40)

Sex	=n	%age
Male	24	60.0
Female	16	40.0

DISCUSSION

Epistaxis is the most common emergency in otorhinolaryngology, with prevalence of about 10 to 12%, generally associated to prevailing factors such as systemic arterial hypertension, trauma and coagulopathy[101,103,106]. The admission criteria are: severe epistaxis with clinical repercussion in patients with hypertension crisis, difficulty to the service control or associated to pathologies that require medical care[104]. It may clinically be divided into anterior and posterior with significant differences in its manifestation and prognosis[102].

The etiology of epistaxis is divided into local and systemic causes. Local causes: Inflammatory-infectious (rhinitis, rhinosinusitis), traumatic (digital, fractures, nasal surgeries), anatomic (septal deviation and perforation), foreign body, chemical or climatic agents and nasal tumors (nasoangiofibroma, nasal polyposis, inverted papilloma, carcinoma). The arterial hypertension is the most frequently associated clinical factor, blood dyscrasia, drugs (acetylsalicylic acid, anticoagulants, non-hormonal anti-inflammatory, antibiotics), neoplasms etc. It is important to find the bleeding site and define its etiology (local or systemic) for indication of the best treatment. The severe epistaxis, associated to prevailing factors such as systemic arterial hypertension and coagulopathy may need a surgical approach in the cases refractory to conservative treatment, such as cauterization and nasal splint[105,106,107].

Epistaxis and arterial hypertension are frequent in the population, but an association is still controversial; it occurs in patients with severe epistaxis and the pressure levels are higher when compared to other patients in emergency services[109]. In some studies the arterial hypertension would determine structural alterations of the nasal vessels similar to those verified in the cerebral circulation and retinal examination. The loss of the elastic layer and of contractile properties of the arteries in the elderly would explain a more severe bleeding than that of younger people with arterial hypertension; the dilation of the vessels would represent some degree of degeneration of the vessels wall that would favor bleeding. The association of epistaxis, hypertension and hypertrophy of the left ventricular would be a consequence of the long duration of the hypertension[108].

So in present study, I evaluated the frequency the of hypertension as a systemic cause in patients with epistaxis, in which 40(38.09%) patients out of one hundred and five were found to have hypertension.

These results were compared with different studys,in one of which conduted by Iseh KR, Muhammad Z[110], A total number of 72 cases were seen with epistaxis out of 3,706 new cases seen at the ENT clinic. The incidence of epistaxis amongst UDUTH ENT patients was 19/1000. There were 45 males (62.5%) and 27 females (37.5%) with a male to female ratio of 1.7:1. Their ages ranged between land 70 years with the 0-10 age range recording the highest number (26.4%). The commonest cause of epistaxis was idiopathic (29.2%), followed by trauma (27.8%) and hypertension (18.0%).Although results are different in this study but are comparable with another study conducted by Secchi, Myrian Marajó Dal--Indolfo, Maria Lucia Pozzobon---Rabesquine, Matheus Moro-Castro, Fabrício[111], in terms of Gender distribution and prevalence of hypertension, in which the results are showing that Most patients were men, in the proportion of 1.5 per 1 woman, and the age range varied from 1 to 88 years old (37±26, average ± DP), prevailing between 11 to 30 of 35% (n=21) and 51 to 60 years of 28% (n=17). The prevailing factors were: arterial hypertension 36% (n=22), trauma 16% (n=10), coagulopathy 5% (n=3), nasal tumor (nasoangiofibroma) 3% (n=1) and patients in whom no prevailing factor was identified 40% (n=24).

CONCLUSION

Although epistaxis is a common otorhino-laryngological emergency and varied in its manifestation, hypertension being the common cause which is amendable to treatment with excellent results and moreover it is more common in male patients of age group between 46–55 years with frequent episodes of epistaxis.

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