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An Observational Study of Clinical Profile of Patients with Epistaxis in Secondary Health Institution in Sub Himalayan Region

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Abstract: ***Introduction: Epistaxis is one of the most common encountered otolaryngologic emergencies and affects up to 60% of the population in their lifetime, of which 6% require medical attention. This study was done to assess the relationship between general pathological conditions and the occurrence of epistaxis and to evaluate the methods required to manage epistaxis. Materials and methods: The patients with epistaxis who were coming to emergency or attending ENT OPD or who were admitted in ENT ward in zonal hospital Dharamshala, Kangra (HP) from October 2020 to October 2021 were included in the study. Detailed history, clinical information was noted for all patients. All included patients underwent investigations as ordered by their doctor, and relevant clinical examinations were performed. Data was analysed using appropriate statistical methods. Results: In this study, the maximum number of subjects had bleeding from both nares followed by left and right nares respectively. Deviation to the right was more common in this study. Hypertension (50%), was the most associated underlying medical condition followed by diabetes mellitus (27.5%).11.11% of patients had nasal bone fractures. Most commonly used modality was anterior nasal packing in 25% cases. Conclusions: These results illustrate the relation of epistaxis with past medical history, duration of bleeding. More research is required to understand the management patterns in different geographical locations.***

Keywords: Epistaxis, nose bleed

1.Introduction

Epistaxis is one of the most commonly encountered otolaryngologic emergencies and affects up to 60% of the population in their lifetime, of which 6% require medical attention [1]. It has been estimated that nosebleeds affect 108 per 100, 000 population per year. Peaks in incidence are seen in those under 10 years of age and in people aged over 40 years [2]. Although nosebleeds are rarely life threatening, the initial evaluation should focus upon the respiratory and hemodynamic stability of the patient rather than the bleeding. Normal appearance, vital signs, and respiratory function are evidence that the examiner can safely attend to the presenting complaint. On the other hand, abnormalities in these indices may signal an emergency [3]. Airway protection and fluid resuscitation are sometimes necessary in massive epistaxis. Rapid assessment of general appearance, vital signs, airway stability, and mental status are necessary to identify children with respiratory or hemodynamic instability who require airway intervention and fluid resuscitation. This study was done to find out the relationship between general diseases and the occurrence of epistaxis and to evaluate the methods required to manage.

2.Materials and Methods

The patients with epistaxis who were coming to emergency or attending ENT OPD or who were admitted in ENT ward in Zonal Hospital Dharamshala, Kangra (HP) from October 2020 to October 2021 were included in the study. Total number of patients were forty included in the study. The patients were interviewed for clinical information and noted.

Data collection and analysis

From each patient, a detailed history regarding epistaxis was noted. Like the mode of onset of epistaxis, amount of bleeding, duration of epistaxis, provoked or unprovoked, means associated with any trauma to nose or any upper respiratory tract infection. Past history regarding hypertension, any episode of epistaxis in the past, bleeding diathesis, blood transfusion and any drug intake was noted. Any family history of hypertension, bleeding diathesis was noted. Personal history of alcohol consumption, smoking, any drug intake was enquired. Pulse rate, blood pressure and temperature were recorded. General physical examination was done to look for pallor for anaemia, icterus, cyanosis, lymphadenopathy, JVP was raised or not, clubbing and pedal oedema present or not. Systemic examination was done to look for any hepatomegaly or splenomegaly. Nose examination was done. Then We looked for any deformity of nose, trauma or scar, any external growth from outside. On internal examination we looked for bleeding, any congestion, any ulcer or scar, crust deposition, septum deviation right or left side, any spur, any polyp or mass, turbinates' size any hypertrophy or atrophy and septal perforation. We also look for any discharge and its amount, colour, consistency, mixed with blood or not was noted. Oral cavity examination was also done to look for any abnormality. Then routine investigations of patients were sent. All this information was noted and entered into Microsoft excel sheets.

3.Results

Total 40 cases were included in this study.32 were male and 8 were female patients. Mean age of the patient was 35.7+-3.8 (table 1). In our study maximum patients i. e.20

(50%) were having underlying hypertension or were newly diagnosed, followed by 11 (27.5%) patients with diabetes mellitus and 8 (20%) with chronic liver disease and only one patient (2.5%) with bleeding disorder (table 2). In our study 25 (62.5%) patients were having deviated nasal septum with 20 to right side and 5 to left side (table 3). In our study 30 patients (75%) presented with duration of bleeding for less than 1 day, while 25 patients (62.5%) presented with blood clots at the time of examination and 10 (25%) presented with active nasal discharge while 5 patients were having ulcer on the anterior septum upon anterior rhinoscopy (table 4). In the management part in 20 patients (50%) bleeding stopped spontaneously while 10 (25%) required anterior nasal packing and 5 (12.5%) required posterior nasal packing while in 5 chemical cautery with trichloroacetic acid (TCA) was done (table 5).

Table 1: Characteristics of patients involved in the study

Males	32
Females	8
Mean Age	35.7+-3.8

Table 2: Existing medical condition

Hypertension	20
Diabetes Mellitus	11
Bleeding Disorder	1
Drug intake	0
Chronic liver disease	8
Tumour	0
Infections (Dengue)	0

Table 3: Nasal septum deviation

Right	20
Left	5
Spur	5

Table 4: Duration of bleeding and clinical findings of the patients

DURATION OF BLEEDING	
Less than 1 day	30
1-2 days	5
3 days	2
More than 3 days	3
CLINICAL FINDINGS	
Anterior rhinoscopy findings	
Nasal discharge	10
Clots	25
Ulcer	5
Mass	0
Deviated nasal septum	25
MANAGEMENT	
Stop spontaneously	20
Anterior nasal packing	10
Posterior nasal packing	5
Surgery	0
Chemical cautery (TCA)	5

4.Discussion

Among systemic causes, hypertension is a significant factor and in present study it accounted for epistaxis in 50 % cases. Most of the cases presenting with hypertension were males, between 45-60 years of age. Olav E. Hallberg [4] and Minn [5] observed hypertension as a cause for epistaxis in 36.4% cases, Holger Juselius in 47.3% cases [6] and Varshney, et al. in 31.82% cases [7] recorded hypertension as a cause for epistaxis. These observations are almost in sync with those of the present study. In present study, anatomic deformity that is deviated nasal septum was observed to be responsible for epistaxis in 3.244% cases, inanimate hygroscopic foreign bodies were observed to be responsible in 2.2% of cases and infestation with maggots was found as a cause for epistaxis in 6.67% of cases. Haemoglobin was found to be between 8 gm%-10gm% in 26.67% cases and less than 8 gm% and more than 4 gm% in 13.33% cases. In the rest of the cases, haemoglobin was above 10 gm%. Holger had found in 1724 patients of epistaxis that haemoglobin was 9 gm% or less in 17.3% cases. Platelet count was lower than 1.5 lakh/cmm in 6.67% of cases. Petruson reported 9% of cases of epistaxis having platelet count less than 1.5 lakh/cmm [8]. Bleeding time and clotting time were deranged in 2.2% of cases, of that of aplastic anaemia. X-ray of nasal bones revealed nasal bone fracture in 11.11% cases.

Majority of nosebleeds resolve, either spontaneously, with the aid of pinching the outer soft tissue of the nose, or by applying an ice pack to the bridge. Some cases require some intervention. The clinician treating epistaxis must understand the normal anatomy of the nose and be familiar with the nasal septum and its appropriate midline position. He or she should be able to identify the inferior and middle turbinates. In the present study, anterior nasal packing was done in 25% cases to stop the bleeding from the nose. Bitar [9] and Juselius have reported 44% cases and 32.7% cases respectively, in whom they carried out a series of anterior nasal packing in order to stop epistaxis. Posterior nasal packing was done in present study in 12.5% cases. Holger carried out posterior nasal packing in 24.8% of cases. Chemical cauterization of the ulcers with TCA was done in 12.5% cases. Bitar [9] has done chemical cauterization in 18.6% cases of nasal bleeding. Holger has done chemical cauterization with silver nitrate in 11.02% cases of epistaxis. No case required ligation of blood vessels. Gel and foam are products that promote thrombogenesis are being developed and tested for treatment of epistaxis. Surgicel, Gelfoam, and Avitene, all common conformable haemostatic materials, have each been described in reviews or small case series as useful in nasal bleeding refractory to cautery.

5.Conclusion

The present study was carried out on 40 patients who presented with epistaxis in zonal hospital Dharamshala, Kangra (H. P). Recurrent epistaxis was observed in one-fourth cases. Deviated nasal septum was responsible for epistaxis in 4.4% cases. Inanimate hygroscopic foreign bodies were responsible for epistaxis in 2.2% cases, animate foreign bodies were responsible in 6.67% cases and high blood pressure was found in 50% of cases. Anterior nasal packing with iodine-paraffin-antibiotic ointment constituted most effective and frequently used in the management in 25% of cases in our study. More research is required in other parts of India to reach a

consensus on how to effectively manage patients of epistaxis.

Declaration of Patient Consent

The authors certify that we have obtained all appropriate patient consent on forms regarding clinical information to be reported in the journal.

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Conflicts of Interest

There are no conflicts of interest

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