Original Research Article

A clinical study of epistaxis

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Abstract

Aims and Objectives: to evaluate the causes and management of epistaxis. **Material and Methods:** The present study was conducted in Department of ENT, SMGS Hospital, GMC Jammu from a period of March 2018 to April 2019 on 100 patients within age group of 18-60 years. All patients with symptom of nasal bleeding were included in our study. Patients below 18 years of age and patients with sinonasal malignancies were excluded from our study. **Results:** our study showed mean age of presentation to be 36.4 years, more male predilection, hypertension to be most common cause and anterior nasal packing most commonly used mode of treatment. **Conclusion:** Through our study, we have summarised various etiological factors leading to epistaxis and also, analysed various management strategies for dealing with epistaxis.

Keywords: Epistaxis, hypertension, packing.

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INTRODUCTION

Epistaxis is defined as bleeding from the nose. The internal and external carotid arteries supply the nose via branches which anastomose extensively within the lateral wall, septum and across the midline. The external carotid artery supplies the nasal cavity via facial and maxillary branches. The facial artery supplies the most anterior part of the septum, the vestibule and a small area of the nasal cavity. The maxillary artery supply is via sphenopalatine and greater palatine branches. The greater palatine artery supplies the antero-inferior part of nasal floor and septum. The sphenopalatine artery divides into posterior septal and posterior lateral rami. The posterior lateral branch gives the inferior and middle turbinate branches. The posterior septal branch runs medially across the face of sphenoid to the posterior part of septum.[1] Epistaxis is common in childhood, becomes less common in early adult life and then peaks in sixth decade. Epistaxis can be primary (without any proven causal factor) or secondary (with definite cause such as trauma, surgery or anti-coagulant overdose). Epistaxis can also be anterior (bleeding point anterior to piriform aperture) or posterior (bleeding point posterior to piriform aperture).[1]The causes of epistaxis may be local (in nose or nasopharynx), general or idiopathic. The local causes in nose may be trauma (finger nail trauma, nasal surgery, fracture middle third of face), infections (acute rhinitis, sinusitis, crust forming diseases like tuberculosis, syphilis), foreign bodies, nasal malignancies. The local causes in nasopharynx may be adenoiditis, juvenile angiofibroma or malignant tumors. The general causes include hypertension, arteriosclerosis, mitral stenosis, aplastic anemia, haemophilia, hepatic cirrhosis, chronic nephritis etc.[2] Treatment for epistaxis may be divided into direct (bleeding point specific therapies) or indirect (which do not require identification of bleeding point). In direct techniques, for anterior epistaxis -silver nitrate cautery is effective, while for posterior epistaxis; bipolar diathermy, electro-cautery or direct pressure from miniature targeted packs. In indirect techniques, anterior nasal packing, hot water irrigation and tranexamic acid and epsilon aminocaproic acid medical therapy may be used.[1]If the techniques described above fail, surgical intervention is required. Surgical management for continued epistaxis

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consists of- posterior packing, ligation techniques, septal surgery techniques and embolization techniques.[1] The aim of our study was to evaluate the causes and management of epistaxis

MATERIAL AND METHODS

The present study was conducted in Department of ENT, SMGS Hospital, GMC Jammu from a period of March 2018 to April 2019 on 100 patients within age group of 18-60 years. All patients with symptom of nasal bleeding were included in our study. Patients below 18 years of age and patients with sinonasal malignancies were excluded from our study. All patients were subjected to relevant clinical history, general physical examination and local examination including anterior rhinoscopy and nasal endoscopy. All patients were subjected to routine laboratory investigations- complete blood counts, renal functions tests, coagulation profile (including PT, PTI, INR) and liver function tests. All relevant medical and surgical intervention records (if any) were studied. In patients with visible bleeding point, electro or chemical cauterisation was used.

RESULTS

Majority of patients in our study were in the age group of 31-40 years, mean age being 36.4 years.

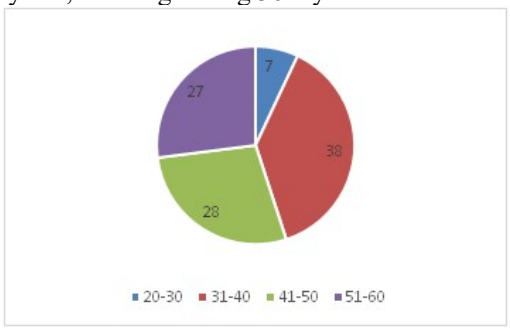

Figure 1

Out of 100 patients, 54 were males and 46 were females.

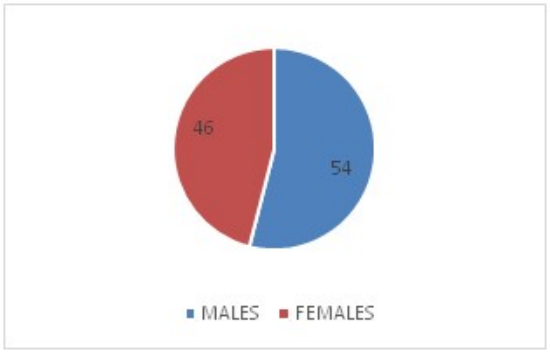

Figure 2

The major presenting complaint of patients in our study was nasal bleeding (100%), nasal obstruction (25%) and nasal discharge (18%)

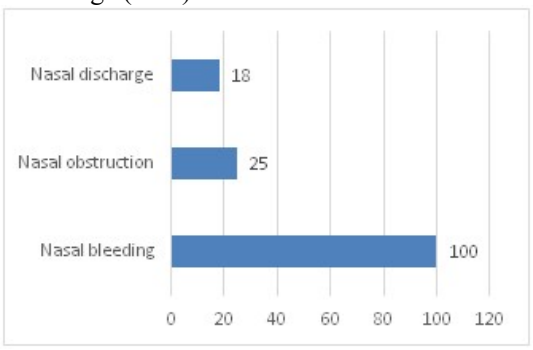

Figure 3

Out of 100 patients, 39 patients were on erratic anti-hypertension treatment; 22 patients were having deviated nasal septum; 15 patients were having chronic rhinosinusitis; 10 patients were having deranged renal function tests; 5 patients were having history of local trauma; 5 patients had no causal factor (idiopathic); 4 patients were having anemia.

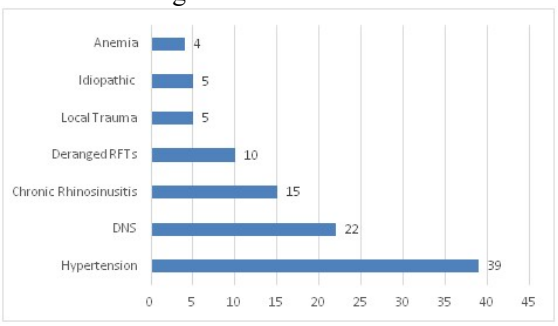

Figure 4

Out of 100 patients, chemical cauterisation with silver nitrate was done on 9 patients, electro-cauterisation was done on 2 patients, merocele were kept in 13 patients, anterior nasal packing was done on 67 patients and posterior nasal packing with foley's catheter was done on 6 patients and posterior nasal packing with posterior nasal pack was done on 3 patients.

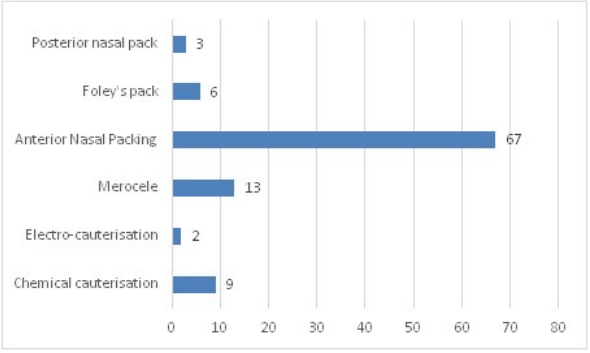

Figure 5

DISCUSSION

Epistaxis or nose bleed is a common problem. Although most cases of epistaxis are relatively minor and manageable with conservative measures, sometimes it can present as a life threatening problem.[3] Majority of patients in our study were in the age group of 31-40 years, mean age being 36.4 years. Charles R *et al*., in their study showed that mean age group to be 57.8 years.[4] Lago P V *et al*., in their study showed that mean age group to be 56 years. [5] In our study, out of 100 patients, 54 were males and 46 were female, showing involvement of more male population. Sampigethaya S *et al*., in their study also showed males to be affected more than females.[6] Sharma K *et al*., in their study showed male population to be affected more than females, with male female ratio being 2.6:1.[7]The major presenting complaint of patients in our study was nasal bleeding (100%), nasal obstruction (25%) and nasal discharge (18%). Out of 100 patients, 39 patients were on erratic anti-hypertension treatment; 22 patients were having deviated nasal septum; 15 patients were having chronic rhinosinusitis; 10 patients were having deranged renal function tests; 5 patients were having history of local trauma; 5 patients had no causal factor (idiopathic); 4 patients were having anemia. Varshney S *et al*., showed in their study idiopathic to be most common cause, followed by hypertension.[8] Chaiyasate *et al*., reported in their study hypertension to be most common cause.[9] Nash CM *et al*, in their study showed trauma to be the commonest cause.[10] Shah *et al*., showed trauma to be commonest cause in their study.[11]Out of 100 patients, chemical cauterisation with silver nitrate was done on 9 patients, electro-cauterisation was done on 2 patients, merocele were kept in 13 patients, anterior nasal packing was done on 67 patients and posterior nasal packing with foley's catheter was done on 6 patients and posterior nasal packing with posterior nasal pack was done on 3 patients. Sharma *et al*., in their study also showed that anterior nasal packing was the major mode of treatment.[7]

CONCLUSION

Epistaxis or nasal bleeding is a very common emergency seen by otorhinolaryngologists. Thus, proper knowledge regarding its etiology and management strategies is very important. Through our study, we have summarised various etiological factors leading to epistaxis and also, analysed various management strategies for dealing with epistaxis.

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