

EPISTAXIS: A CLINICAL STUDY OF 200 CASES IN A TERTIARY HOSPITAL - OUR EXPERIENCEAnil Markose P¹, K. M. Thomas Rony², Sajeev George³**HOW TO CITE THIS ARTICLE:**

Anil Markose P, K. M. Thomas Rony, Sajeev George. "Epistaxis: A Clinical Study of 200 Cases in a Tertiary Hospital - Our Experience". Journal of Evolution of Medical and Dental Sciences 2014; Vol. 3, Issue 17, April 28; Page: 4441-4445, DOI: 10.14260/jemds/2014/2456

ABSTRACT: AIMS: The aim of this study is to analyse the age & sex distribution, etiology and the management of patients presenting with epistaxis. **MATERIALS AND METHODS:** All patients who presented with epistaxis to our department of otorhinolaryngology during the period from March 2012 to March 2014 constituted the study. Detailed history, clinical findings and investigations like blood examination of all patients were recorded. Management whether conservative or surgical was also recorded. **RESULTS:** A total of 200 patients who presented with epistaxis were considered for this study. The commonest age group involved was 51-60 years with male preponderance (72%). Bleeding was more common from both nostrils in our study. The commonest etiology was hypertension (47.1%) followed by trauma (13.4%) and deviated nasal septum (9%). Non-surgical modality of treatment was resorted to in majority of the cases. Anterior nasal packing was done in 48 patients while both anterior and posterior nasal packing were required in 13.5% of the cases. Surgical intervention was needed in 4% of the cases. **CONCLUSION:** Epistaxis is a common emergency in otolaryngology. Each case tends to present different challenges and success depends on timely and effective intervention by the attending otolaryngologist. This study supports the clinical usefulness of conservative management in treatment of patients with epistaxis.

KEY WORDS: EPISTAXIS, AETIOLOGY, TREATMENT.

INTRODUCTION: Epistaxis or nasal bleed is a frequently encountered emergency in Otorhinolaryngology. Timely and effective intervention is necessary to allay the patient's and bystander's fears about epistaxis. Epistaxis as a disease of the young was suggested by some authors in contrary to others who found it common among elders. The causes of epistaxis include local and systemic factors such as trauma, nasal septal deviation, hypertension, tumours, infections, bleeding disorders, drugs and finally even idiopathic. For some patients, the cause for epistaxis can be multifactorial. Epistaxis can be classified based on where it is bleeding from, that is from the nose or into the throat, which is anterior and posterior nasal bleeding respectively. Anterior epistaxis is often managed conservatively unlike posterior nasal bleed. Treatment modalities vary from patient to patient depending on the type and amount of nasal bleed and along with the patient's general condition. Treatment options were divided into surgical and non-surgical. Non-surgical treatment included medical treatment, nasal packing and cauterization. Surgical management involved endoscopic cauterization, endoscopic sinus surgery and nasal septal surgeries.

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MATERIALS AND METHODS: This study was a retrospective review of 200 patients who presented to our department of Otorhinolaryngology, with epistaxis during the period between March 2012 and March 2014. All patients presenting to our department with epistaxis were considered for this study. A detailed history, clinical examination, investigations like blood examination was done in all patients in this study. History of drug intake especially anticoagulants and any associated co-morbidities were noted. Age, sex, seasonal prevalence, examination findings and etiology of these cases were recorded. The management of these patients whether surgical and non-surgical was noted. Cauterization was done with silver nitrate under local anesthesia while endoscopic electrocautery was done under general anesthesia. Anterior nasal packing was done using a ribbon gauze smeared with bismuth iodoform paraffin paste or merocel pack, while posterior nasal packing was done with Foley's catheter. This study was approved by the ethical committee of this institution.

RESULTS: A total of 200 patients who presented with epistaxis were considered for this study. The commonest age group involved was 51-60 years (Table-1). Our study showed a male preponderance, that is 144(72%) males and 56(28%) females. The maximum number of cases with epistaxis occurred during the period from January-March (30.5%)(Table-2). Although bleeding was more common from both nostrils in our study, in unilateral cases, left nasal cavity was more commonly involved (Table-3). In our study, the commonest etiology was hypertension (47.1%) followed by trauma (13.4%) and deviated nasal septum (9%) (Table-4). In 16 cases, no cause was found, so hence they were labeled idiopathic. Non-surgical modality of treatment was resorted to in majority of the cases. Medical management in the form of ice compression, antihypertensive drugs, nasal pinching and antibiotics were commonly employed (54%). Cauterization was done in 4.5% of cases where site of bleeding was identified. Anterior nasal packing was done in 48 patients, while both anterior and posterior nasal packing were required in 13.5% of the cases (Table-5). Surgical intervention was needed in 4% of the cases.

AGE	MALE	FEMALE	TOTAL	PERCENTAGE (%)
0-10	7	7	14	7
11-20	6	7	13	6.5
21-30	13	2	15	7.5
31-40	13	4	17	8.5
41-50	26	9	35	17.5
51-60	34	9	43	21.5
61-70	24	8	32	16
71-80	16	7	23	11.5
81-90	5	2	7	3.5
91-100	0	1	1	0.5

TABLE -1: AGE AND SEX DISTRIBUTION OF EPISTAXIS

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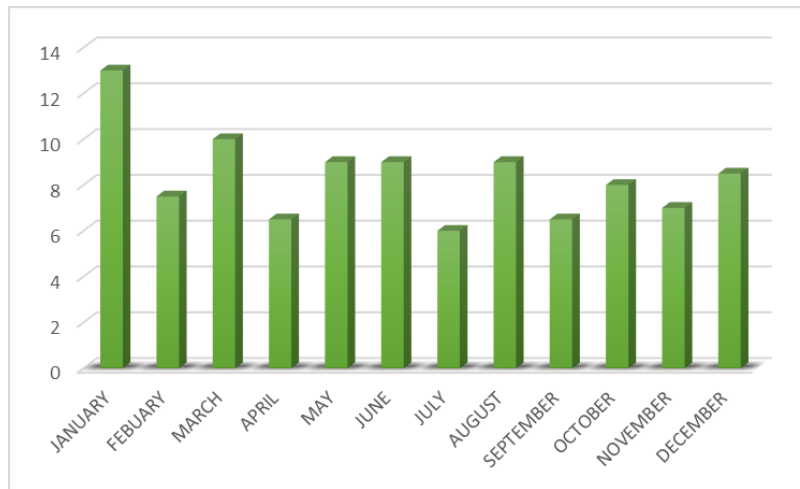


TABLE-2: BAR DIAGRAM SHOWING MONTH OF PRESENTATION

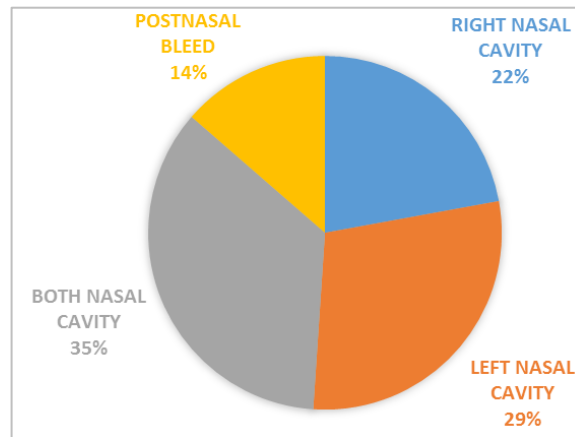


TABLE-3: PIE CHART SHOWING SITE OF BLEEDING

ETIOLOGY	NUMBER OF CASES	PERCENTAGE (%)
HYPERTENSION	109	47.1
IDIOPATHIC	16	6.9
BLEEDING DISORDER	8	3.5
TUMOURS	4	1.7
DRUGS	16	6.9
LIVER DISEASE	18	7.8
INFECTION	7	3
TRAUMA	31	13.4
DEVIATED NASAL SEPTUM	21	9
KIDNEY DISEASE	1	0.4

TABLE-4: ETIOLOGY OF EPISTAXIS

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TREATMENT	NUMBER OF CASES	PERCENTAGE (%)
NON-SURGICAL		
MEDICAL	108	54
CAUTERIZATION	9	4.5
ANTERIOR NASAL PACKING	48	24
POSTERIOR NASAL PACKING	27	13.5
SURGICAL		
SEPTOPLASTY	3	1.5
ENDOSCOPIC SINUS SURGERY	5	2.5

TABLE-5: TREATMENT OF EPISTAXIS

DISCUSSION: Epistaxis is a frequently encountered emergency in Otorhinolaryngology practice and occurs in approximately 10% of the population at any given time.¹ It may lead to significant mortality and morbidity in pediatric and geriatric patients. So timely intervention if required becomes imperative in most cases of epistaxis.

Our study confirmed the earlier findings of Marina F et al,² that epistaxis was common among the male population. Epistaxis was found to be more common in 51-60 age group.

Epistaxis was more common in our study between the months of January and March, which may be attributed to local weather changes.

In our study, hypertension was the commonest etiology of epistaxis which was comparable to results obtained by Ogura,³ Isezou et al⁴ and Jackson et al.⁵ Hypertension causes arterial muscle degeneration which prevents it from contracting, resulting in persistent bleeding in these cases. Some authors suggested that hypertension in patients with epistaxis could be related to anxiety.⁶ Most of our patients with hypertension were also treated with anxiolytics.

Some of the patients in our study had multiple etiological factors for epistaxis demanding multi-departmental involvement. Drugs like acetylsalicylic acid are nowadays prescribed as a life style drug for the elderly. Patients on this medication are more prone to develop severe epistaxis as stated by Micheal et al.⁷ In our study, 16% of the cases were on anticoagulant drugs.

Studies showed that routine coagulation work up was not necessary in all patients with epistaxis.⁸ In our institution; coagulation profile was done only in patients with suspected disease (liver, kidney or bleeding) and for those who were on anticoagulant drugs.

In our study, majority (54%) of the cases were managed medically. Site of bleeding was identified in 9 cases who underwent cauterization. Anterior nasal packing acts by applying pressure over the entire nasal mucosa, and also the resulting edema and inflammatory process prevents further bleed.² Discomfort due to bilateral nasal obstruction and pain on removal were considered a drawback of anterior nasal packing. The advent of absorbable and non-absorbable packs like gelatin foams and inflatable balloons respectively have given hope in tiding over these problems, but their cost being a limiting factor in developing countries. Complications with nasal packing reported in literature were cardiac arrhythmias, gram negative sepsis, Eustachian tube dysfunction and sinusitis. In our study, once nasal packing was done, all patients were put on antibiotic cover and the nasal pack was kept in place for a maximum of five days. In our study, 24% of cases underwent anterior nasal packing. Posterior nasal packing can cause significant hypoxia especially in patients with

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chronic systemic disease.¹ 13.6% of patients in our study had posterior epistaxis which required intervention. When site of bleeding was from a septal spur or from an area behind a septal deflection, then nasal packing becomes ineffective and hence septal surgery should be considered. 1.5 % of the cases in this study underwent septoplasty.

CONCLUSION: Epistaxis is a commonly encountered emergency in otorhinolaryngology. Immediate and effective assessment of the cause by otolaryngologist with timely management of these patients is the need of the hour.

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Date of Submission: 25/03/2014.

Date of Peer Review: 26/03/2014.

Date of Acceptance: 5/04/2014.

Date of Publishing: 22/04/2014.