

Epistaxis in Port Harcourt

B.C.C Okoye FWACS, FICS, L. O. Onotai MBBS

Department of Otorhinolaryngology, University of Port Harcourt Teaching Hospital, Port Harcourt

ABSTRACT

Background: *Epistaxis often causes significant anxiety in both patients and clinicians. Various methods of treatment have been advocated. The aim of this paper is to document the pattern of epistaxis in Port Harcourt, determine the etiologies and advocate the best treatment option.*

Methods: *This is a 6-year retrospective study of patients that were managed for epistaxis in the department of Otorhinolaryngology of the University of Port Harcourt Teaching Hospital, Port Harcourt, from January 2000 to December, 2005.*

The material resources were the records of the Otorhinolaryngology outpatient clinic and Accident & Emergency department of the hospital. These were updated with records from the ward admissions and theatre. The diagnosis of epistaxis was based on clinical history, physical findings, laboratory and radiological investigations with examination under anaesthesia of the nose, nasopharynx and biopsy.

Results: *There were 30 patients, 16 males and 14 females with a mean age of 30.48 years \pm 15.14 [range 1-70 years]. The most commonly affected age group was 31-40 years. Idiopathic causes accounted for 66.67%, trauma 13.33%, nasopharyngeal carcinoma 10%, chronic maxillary sinusitis 6.67%, and vicarious menstruation 3.33%.*

The right nasal cavity was more affected than the left. The most commonly used method of treatment was anterior nasal packing (50%). Posterior nasal packing accounted for 26.67% while chemical cauterization was done in 13.3% of cases.

Conclusion: *The pattern of epistaxis in our study agrees with the pattern found elsewhere. Anterior and posterior nasal packing were cost effective methods of treatment.*

KEYWORDS: Epistaxis; Nasal Packs; Port Harcourt.

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INTRODUCTION

Epistaxis is mentioned in early medical literature dating back to 400 BC by Hippocrates¹. It is defined as haemorrhage from the nasal cavities or nasopharynx. It is a frequent complaint at Emergency Departments, which often causes significant anxiety in patients and clinicians. Most times it is mild and ceases spontaneously or may be successfully treated by an

Emergency Physician. Occasionally, it could be severe and life threatening. Severe epistaxis poses a challenge to the Otorhinolaryngologist².

Epistaxis is classified on the basis of the primary bleeding site as "anterior" or "posterior". Nose bleeding is most commonly anterior, originating from the nasal septum in an area called the "Kiesselbach's plexus". Posterior nose bleed originates from branches of sphenopalatine and greater palatine arteries in the posterior nasal cavity or naso-pharynx³.

Most cases of epistaxis do not have an easily identifiable cause. Trauma, allergic rhinitis, neoplasms, drug toxicity, coagulopathies and platelet disorder related conditions are predispositions to epistaxis. Other causes are vascular abnormalities, uraemia and infections.

The treatment of epistaxis depends on factors such as the type, mode of presentation and aetiology⁴.

The best treatment method remains a controversy. Emergency department care starts with resuscitation of the patient and asking the patient to grasp and pinch the entire nasal pyramid maintaining continuous pressure for at least 10 minutes. Patients with significant haemorrhage should be stabilized haemodynamically with blood transfusion and/or crystalloid and/or colloid infusions. Pledgets soaked with a vasoconstrictor solution should be inserted into the nasal cavity and allowed to remain in place for 10-15 minutes. If a bleeding point is visualized, it could be cauterised with either silver nitrate sticks or electrocautery. If attempts to control haemorrhage with pressure or cautery fail, then the nose should be packed.

Nasal packing can either be anterior nasal packing with gauze ribbon impregnated with Bismuth Iodo-parafin paste (BIPP) or posterior nasal packing with tampon catheters or gauze packs⁵.

Other modalities of treatment are submucosal septal resection, arterial ligation and endovascular embolisation⁶⁻⁸.

It is the aim of this study to highlight the pattern and etiology of epistaxis and its treatment over a 6-year period in our center.

The paucity of publications on Epistaxis in the Niger Delta Region makes this study relevant.

PATIENTS AND METHODS

This is a 6-year retrospective study of patients managed in the Department of Otorhinolaryngology of

University of Port Harcourt Teaching Hospital (UPTH) from January 2000 to December 2005. The material resource was the medical records of patients kept in the Otorhinolaryngology outpatient clinic and Accident and Emergency department. These were updated with records from the ward admissions and theatre.

The diagnosis in each patient was based on the medical history, clinical examination findings, laboratory and radiological investigations with examination under anaesthesia of the nose, nasopharynx and biopsy. The treatment carried out included: Anterior nasal packing, posterior nasal packing and chemical cauterization using silver nitrate sticks

Data was analysed using SPSS 11.0 version and presented in simple statistical tables.

RESULTS

Out of a total of 55-recorded cases of epistaxis during the study period only the data of 30 patients were available for analysis. Their age ranged from 1-70 years with mean age of 30.48 years. The incidence was highest in the age group of 31-40. Table I shows the age distribution of patients with epistaxis mean age 30.48 years \pm 15.14 years [SD] with a Median of 33.0 years. There were 16 males and 14 females giving a male: female ratio of 1.1:1. Table II: shows the etiological factors for epistaxis.

In 66.67 % of cases the aetiology was unknown. Trauma constituted 13.33 %, nasopharyngeal carcinoma 10%, chronic maxillary sinusitis 6.67% and vicarious menstruation 3.33%.

Both nasal cavities were involved in 5 cases (16.67%), right nasal cavity 15 cases (50%) and left nasal cavity in 10 cases (33.33%).

Table III shows the treatment modality applied. Anterior nasal packing was mostly administered. It was done for 15 cases (50%), posterior nasal packing 8 cases (26.67%), anterior + posterior nasal packing 3 cases (10.00%), and chemical cauterization 4 cases (13.33%).

Table I. Age Distribution of Patients with Epistaxis

n = 30

AGE GROUP (YEARS)	NUMBER OF PATIENTS	PERCENTAGE (%)
1-10	3	10.00
11-20	5	16.67
21-30	4	13.33
31-40	11	36.67
41-50	5	16.67
51-60	1	3.33
61-70	1	3.33
Total	30	100

Table II. Etiological Factors of Epistaxis

n = 30

ETIOLOGICAL FACTORS	NUMBER OF PATIENT	PERCENTAGE (%)
Idiopathic	20	66.67
Trauma	4	13.33
Chronic maxillary sinusitis	2	6.67
Nasopharyngeal carcinoma	3	10.00
Vicarious menstruation	1	3.33
Total	30	100

Table III. Treatment modality Applied

n = 30

TREATMENT MODALITY	NUMBER OF PATIENTS	PERCENTAGE (%)
Anterior nasal packing	15	50
Posterior nasal packing	8	26.67
Anterior + Posterior nasal packing	3	10.00
Chemical cauterization	4	13.33
TOTAL	30	100

DISCUSSION

Epistaxis is common and affects all age groups. Its prevalence in random samples of the population was found in a study to be between 10 and 12%¹. It occurs in 1 out of 7 people⁶. It may become a life threatening condition that demands emergency intervention.

In our study it occurred in all age groups but was found to be commoner in the age group 31-40. In the United States a bimodal incidence exists with peaks in those aged 2-10 years and 50-80 years. A study done in Enugu revealed that it was commoner in the age group 21-30 followed by 31-40⁹.

The majority of causes of epistaxis were unknown which is in consonance with other reports^{4,5,9}.

Trauma accounted for 16% of cases reviewed in Enugu⁹. This did not differ widely from the findings of our study that showed 13.33%.

The best method of treatment varies. Anterior nasal packing with ribbon gauze was done for most (50%) of our cases, which conforms to the Enugu study⁹.

In developed countries compressed sponge (merocel) is used to tamponade bleeding instead of ribbon gauze. In addition, epistaxis balloons can also be inserted along the floor of the nasal cavity and inflated with sterile water to control bleeding¹⁰.

Cassisi *et al* criticized anterior nasal packing procedure because it caused decrease oxygen tension and increase carbon dioxide tension in the blood but Larson's reports showed unchanged blood gas analysis values. Another setback of nasal packing is that it can cause vaso vagal episodes during the procedure^{11,12}.

The use of Foleys catheter is invaluable as any member of the managing team can easily apply it. Another option of treatment applied was cauterization, which could be chemical or electrical. This is usually

applied to the point of the bleeding. Other methods of treatment include sub-mucosal resection of the nasal septum, arterial ligation and endovascular embolization of vessels^{6,8,13}. These later methods were not used in the cases under review.

All patients that were admitted had examination under anesthesia of the nose and nasopharynx before discharge while those that were not admitted were followed up for a complete nasopharyngeal examination. This became imperative as 10% of our patients had epistaxis due to histologically confirmed nasopharyngeal carcinoma. As part of the treatment antibiotics, blood transfusion and antral lavage were used to augment the treatment methods. A complete systemic evaluation is essential in the management of epistaxis. In our study none of our patient, had hypertension and other systemic disorders and there was no mortality.

CONCLUSION

The pattern of epistaxis in our study agrees with the pattern found elsewhere, anterior and posterior nasal packings were cost effective in its management.

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