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Clinicoepidemiological Study on Epistaxis and Its Management

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Abstract
Introduction: *Epistaxis is a common clinical problem and is an uncomfortable experience that can cause great apprehension and anxiety in patients. Most nose bleed are benign, spontaneous and self-limiting. Epistaxis can range from minor bleed to profuse bleed that can be life threatening and warrant urgent medical attention. By this means it becomes necessary to study aetiology, age and sex incidence, seasonal variation, site and management of epistaxis.*
Materials and methods: *Eighty six patients attending dept of ENT and emergency were taken for the study. First steps were taken to arrest bleeding and general condition of patients was improved. Then necessary investigations were done and treated accordingly.*
Result: *Males were affected more than females. Age distribution was maximum between 40-60 years in winter. Anterior epistaxis was most common {64%}.85% cases were managed conservatively by nasal packing.*
Conclusion: *Most common cause of epistaxis was hypertension. Anterior bleeding was more frequent. Majority of patients were managed conservatively. Only few required surgery.*
Keywords: *Epistaxis, Emmergency, Hypertension, Nasal packing.*

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I. Introduction

The term epistaxis is Latin, derived from the Greek word 'EPISTAZEIN' which means to flow, drop by drop [1].Vogel in 1764 suggested that this term should be used to denote nasal bleeding only. The condition is self-limiting. Epistaxis is estimated to occur in 60% of individual's worldwide[2] and 6% of them seek medical attention [3]. Incidence from most studies ranges from 10% to 15% [4,5]. A slight male preponderance with 55% male and 45% female has been reported[7,8]. Epistaxis is rare in neonates but common among children and young adults, and again common in the sixth decade giving a bimodal age presentation [3, 6, 9]. Epistaxis as seasonal variation can occurs more frequently during the dry hot and cold winter months [10]. Epistaxis is divided into anterior and posterior epistaxis depending on the site of origin [6]. Anterior nose bleeds arise from the Little's area and common in children and young adults. Posterior nose bleed arise from damage to the posteriornasal septal artery and common after 40 years of age [11,12].Anterior epistaxis is far more common than posterior epistaxis, accounting for more than 80% of cases [11,13]. The causes and course of epistaxis is probably multi-factorial. Aetiology of epistaxis has been reported to vary according to age and anatomical location [11,14]. Local causes ranges from trauma, infection, neoplasms of nasal cavity paranasal sinuses and nasopharynx to rare congenital causes. While general causes includes hypertension, blood and blood vessel disorders, bleeding disorders, to liver and renal disorders. Epistaxis due to trauma is more common in younger individuals and is most often due to digital trauma, facial injury, or a foreign body in the nasal cavity [12,14]. Non traumatic epistaxis is more common in older patients. Epistaxis that occurs in children is usually mild and originates in the anterior nose. Epistaxis that occurs in older individuals is likely to be severe and originates posteriorly [15]. Both conservative and surgical treatment modalities have been used in the treatment of epistaxis [12,16]. Most of the underlying causes of epistaxis are preventable [14,15].. Broad availability of endoscopic equipment is shifting management toward targeting the bleeding point. In majority of cases of epistaxis only conservative treatment such as local pressure, vasoconstrictor drugs, anterior and posterior nasal packing are needed. Epistaxis refractory to conservative treatment can be treated surgically.

II. Materials And Method

This is a prospective study carried out in the Dept. of ENT of IQ City Medical college, Durgapur, WB. It includes 86 patients presenting with epistaxis to OPD and emergency between June 2016 to April 2019. Patient of all age groups and sexes were included. Patients without consent were excluded.

Detailed clinical history was taken. General physical examination of the patients with attention to pulse, temperature, blood pressure, pallor and subcutaneous bleeding was done. Systemic and ENT

examination was done in detail. Complete blood chemistry and coagulation profile were done in each and every case. Histopathological examination and radiological investigations were done when necessary. Data was collected using a proforma and data collected included patients demographics, etiology, site and management modality.

III. Figures And Tables

Table-1. Age Distribution

AGE IN YEARS	NUMBER	%AGE
1- 10	2	2.3
11- 20	5	5.8
21-30	4	4.6
31-40	12	13.9
41-50	47	54.6
51-60	10	11.6
>60	6	6.9
TOTAL	86	100

Maximum patient were in the age group of 41-50 years i.e 54%

Table-2. Sex Distribution

SEX	NUMBER	%AGE
MALE	55	65
FEMALE	31	35
TOTAL	86	100

Epistaxis was more common in male[65%] than in females [35%].

Table -3. Etiology of Bleeding

ETIOLOGY	NUMBER	%AGE
TRAUMA	15	17.4
INFECTION	6	6.9
NASAL MASS	8	9.3
HYPERTENSION	47	54.6
DNS	4	4.6
FOREIGN BODY	3	3.4
IDIOPATHIC	3	3.4
TOTAL	86	100

Common cause of epistaxis was hypertention [54%] followed by trauma[17%].

Table-4. Seasonal Variation

SEASON	NO. OF CASES	%AGE
WINTER	46	53.4
SUMMER	22	25.5
MONSOON	18	20.9

Epistaxis was more prevalent during winter[53%] followed by summer season.

Table-5. Site of Bleeding

SITE OF BLEEDING	NO. OF CASES	%AGE
ANTERIOR	46	53.4
POSTERIOR	15	17.4
BOTH	25	29

Anterior epistaxis[53%] was more common than posterior epistaxis [17%].

Table-6. Treatment [non- surgical] 73 Patients

TREATMENT	NO. OF CASES	%AGE
ANTERIOR NASAL PACKING	60	70
POSTERIOR NASAL PACKING	4	4.6
FOREIGN BODY REMOVAL	3	3.4
MEDICAL	19	22

Bleeding was controlled in 70% of cases by anterior nasal packing.

Table-7. Treatment [Surgery] 13 Patients

SURGERY	NO. OF CASES	%AGE
FRACTURE REDUCTION	6	7
SEPTOPLASY	3	3.4
FESS	1	1
CAUTERISATION	3	3.4

Fracture reduction done in 7% patients , 3 patients underwent endoscopic cauterization .and 3 patients had septoplasty.

IV. Discussion

In the present study maximum patients are in the age group of 40-50 years. Varshney et al., in their retrospective study mentioned that the mean age of presentation was 47.8 years and the maximum patients were in the age group of 40-50 years and this matches with our study. [3]

In the present study males are more often affected than females. In the present study 65% of the cases were males and rest 35% were females. Arshad et al., in their study found 76 males and 33 females with male to female ratio of 2.4:1 [17]. Chaiyasate S. et al. reviewed 55 cases and mentioned that 41 cases were males and 14 were females [18].

In present study, hypertention accounts for most common cause of epistaxis[54%] followed by trauma[17%], inflammatory conditions like sinusitis, rhinosporidiosis, allergy etc. led to epistaxis in 7% of cases. Neoplasm in nose and paranasal sinuses found in 9% cases only. Razdan in their study stated that hypertension was the most common systemic cause among indoor patients. Holger Juselius observed hypertension in 47.3% cases of epistaxis. Many studies have shown hypertension as a common cause of epistaxis [23, 25].

Here the incidence of epistaxis is more in winter season i.e. 54%.Therefore it can be said that epistaxis is more common during dry hot summer months and dry cold winter months. The incidence of epistaxis was low during rainy season. Varshney et al. mentioned that the number of cases of epistaxis was more in autumn and winter months[3]

In present study,54% of patients had anterior and 17% had posterior bleeding; while in remaining bleeding site could not be identified[25%] [17]. Varshney et al. in their study of 88 patients found 50 cases had bleeding from septum, out of which in 36 cases it was from anterior part and in remaining 14 cases bleeding was from the posterior part of the septum. In 23 cases (26%) the bleeding was from the lateral wall [3].

In this present study out of 86 cases 73 responded to conservative or nonsurgical treatment, which included anterior nasal packing (70%), posterior nasal packing(5%) and 22% patients recovered with medical management only. In 13 patients surgical procedures were performed. 6 patients[7%] had fracture reduction, 3 patients underwent septoplasty and in 3 patients endoscopic cauterization was done. FESS was done in 1 patient.. In a study done by Arshad et al., 81.66% patients responded to conservative or nonsurgical treatment. In 18.35% patients some surgical procedures were performed [17].

V. Conclusion

Epistaxis is a common clinical condition and requires prompt treatment to reduce morbidity and mortality. Hypertension appeared as the most common cause for epistaxis in this study. In this study most cases were successfully managed with conservative treatment and few cases required surgical treatment. Epistaxis refractory to conservative treatment can be treated either surgically or by embolization. Nonsurgical treatment is safe and cost effective and surgical treatment may not be necessary in most cases and should be the last resort.

References

[1]. Swift AC, Bleier BS, Bhalla RK, Schlosser RJ (2013) Epistaxis: etiology, investigations and management. Rhinology and skull base surgery from the lab to the operating room: an evidence based approach. Thieme medical publisher, New York, USA. 507-523.
[2]. Viehweg TL, Roberson JB, Hudson JW (2006) Epistaxis: diagnosis andtreatment. J Oral Maxillofac Surgery 64(3): 511-518.
[3]. Varshney S, Saxena RK (2005) Epistaxis: a retrospective clinical study. Indian J Otolaryngol Head Neck Surg 57(2): 125-129.
[4]. Watkinson JC (1997) Epistaxis. Scott-Brown's otolaryngologyrhinology, Butterworth-Heinemann, London. 1-19.
[5]. Roland NJ, McRae RDR, McCombe AW (2001) Key topics in otolaryngology and head and neck surgery, Bios Scientific Publishers, Oxford. 72.
[6]. Walker TWM, Macfarlane TV, McGarry GW (2007) The epidemiology and chronobiology of epistaxis: an investigation of Scottish hospital admission 1995-2004. Clin Otolaryngol 32(5): 361-365.
[7]. Nnnennia CM (2004) Epistaxis in Enugu: A 9 year review. Nigerian J Otorhinolaryngol 1(1): 11-14.
[8]. Gerald WM (2008) Epistaxis: Scott-Brown's Otorhinolaryngology Head and Neck Surgery. (7th edn), Hodder Arnold. 2(13): 1596-1607.
[9]. Hussain G, Iqbal M, Shah SA, Said M, Sanaullah, Khan SA, et al., (2006) Evaluation of aetiology and efficacy of management protocol of epistaxis. J Ayub Med CollAbbottabad 18 (4): 63-66.

[10]. Tan LK, Calhoun KH (1999) Epistaxis. Med Clin North Am 83(1): 43-56.
[11]. Ciaran SH, Owain H (2009) Update on management of epistaxis. The West London Medical Journal 1(1): 33-41.
[12]. Pope LER, Hobbs CGL (2005) Epistaxis: an update on current management. Postgrad Med J 81(955): 309-314.
[13]. Nash CM, Field SMB (2008) Epidemiology of Epistaxis in a Canadian Emergency Department. Israeli Journal of Emergency Medicine 8(3): 24-28.
[14]. Pallin DJ, Chng Y, McKay MP, Emond JA, Pelletier AJ, et al., (2005) Epidemiology of epistaxis in US emergency departments, 1992 to 2001. Ann Emerg Med 46(1): 77-81.
[15]. Bernius M, Perlin D (2006) Pediatric ear, nose, and throat emergencies. Pediatr Clin North Am 53(2): 195-214.
[16]. Pond F, Sizeland A (2000) Epistaxis. Strategies for management. Aust Fam Physician 29(10): 933-938.
[17]. Arshad M, Ahmad Z, Ali L (2007) Epistaxis: an experience with over 100 cases. RMJ 32(2): 142-145
[18]. Chaiyasate S, Roongrotwattanasiri K, Fooanan S, Sumitsawan Y (2005) Epistaxis in Chaing Mai University Hospital. J Med Assoc Thai 88(9): 1282- 1286.
[19]. Abrich V, Brozek A, Boyle TR, Chyou PH, Yale SH (2014) Risk factors for recurrent spontaneous epistaxis. Mayo Clin Proc 89(12): 1636-1643.
[20]. Ando Y, Limura J, Arai S, Arai C, Komori M, et al., (2014) Risk factors for recurrent epistaxis: Importance of initial treatment. Auris Nasus Larynx 41(1): 41-45.
[21]. Razdan U, Zada R, Chaturvedi VN (1999) Epistaxis: Study of aetiology, site and side of bleeding. Indian J Med Sci 53(12): 545-552.
[22]. Yang WG, Tsai TR, Hung CC, Tung CC (2001) Life threatening bleeding in a facial fracture. Ann Plast Surg 46(2): 159-162.
[23]. Gilyoma GM, Chalya PL (2011) Etiological profile and treatment outcome of epistaxis at a tertiary care hospital in north western Tanzania: a prospective review of 104 cases. BMC Ear, Nose and Throat disorders 11: 8-14.
[24]. Hanif M, Rizwan M, Rabbani MZ, Chaudhari MA (2001) Common cause of epistaxis: a two years' experience at Rawalpindi general hospital. J of Surg Pakistan 6(2): 2-3.
[25]. Iseh KR, Muhammad Z (2008) Pattern of epistaxis in Sokoto, Nigeria: a review of 72 cases. Ann Afr Med 7(3): 107-111

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