A prospective study of clinical profile of patients with epistaxis at secondary level care metro hospital

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ABSTRACT

Clinical profile of 42 epistaxis patients and their management and outcome were prospectively studied. Majority of cases are of traumatic etiology followed by idiopathic occurrence. Hypertension is frequently associated in older patients with probable etiological role. Conservative management with nasal packing and where bleeding point is visualized, electric cauterization were highly successful in control of epistaxis. The strengthening of such efforts with availability of appropriate equipments, would enhance quality and efficiency of care in this frightening disorder most affecting pediatric age group.

Key words: Epistaxis, Nasal cautery, Nasal packing

Introduction

Epistaxis is frequently presenting emergency in otorhinolaryngology. It may as well, be recurrent chronic problem and manifestation of systemic disease [1]. The bleeding causes serious anxiety and may be large enough to affect haemodynamics. Epistaxis is more frequent before age of 10 years and after 4^{th} decade of life [2]. Depending on site of origin, anterior or posterior epistaxis can occur. Anterior epistaxis arises of damage to Kesselbachs plexus at lower part of anterior nasal septum (Little's area). Posterior epistaxis arises from damage to posterior nasal septal artery [3, 4]. More than $3/4^{th}$ cases are found to be anterior variety [5]. Etiological profile of epistaxis varies by age and site [3, 6]. Treatment requires methodical approach according to cause, site and severity of bleeding [3-5, 7]. Both conservative and surgical interventions may provide right treatment option [1, 5]. Outcomes of these treatment options have rarely been evaluated. Quite often, underlying causes of epistaxis are preventable [6, 7]. In present study, etiology and outcome of management are appraised together.

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Patients and method

This was a prospective, descriptive study conducted in otorhinolaryngology section of Shishumangal (VIMS) hospital, Kolkata, from Nov 2012 to Dec 2013 period, with Departmental approval. Patients /guardians were explained of the study and assured of no revelation of personal identity. Their consent was taken to be included in study. The patients presenting with epistaxis were initially assessed for haemodynamic status and type and severity of bleeding. Resuscitation measures were to be instituted when necessary, before history taking and general examination. The later, were carried out in stable patient. ENT examination focused on identifying site of origin of bleeding. Other relevant investigations were ordered, as required, for clue to etiology. Diagnosis of epistaxis was based on clinical history, physical findings, laboratory and if necessary, radiological investigation, combined with examination of nose and nasopharynx under anaesthesia including biopsy, if required. Management was conservative, but when unsuccessful, led to surgical intervention. The conservative treatment included cauterization of bleeding site with electro cautery, anterior nasal packing and posterior nasal packing. Successful treatment was defined as no recurrence of epistaxis on pack removal and no readmission with epistaxis, within 24 hours of discharge. Details collected included demographic data, cause of epistaxis, anatomical

location of bleeding site, management modalities, need for blood transfusion, length of stay in hospital, any complications and mortality.

Observations and result

The study covered 42 cases of epistaxis. Thirty three of these came through emergency and 9 through otorhinolaryngology outdoors. Thirty of these were male and 12 females, showing 2.5 times male preponderance. Ages of patients ranged from 5 year to 72 years, with mode 34 years. Commonest etiology of epistaxis was trauma in 15 cases, followed by idiopathic in 11 cases. Seven cases were hypertensive. Miscellaneous causes included chronic rhinosinusitis in 3, nasal growth in 3, nasal foreign body in 1, nasal itch in one and known bleeding disorder in 1 patient. Patients without trauma, gave history also of past epistaxis episodes, at 1 to 5 occasions. Four patients had more than 1 cause of epistaxis. Anterior nasal bleed occurred in 37 of 42 cases. Three cases were of posterior bleed and in 2 no bleeding site could be identified. Right nasal cavity was affected in 25 patients, while, left in 12 and 5 patients had bilateral involvement .Essentially, nonsurgical management sufficed to stop bleeding in 39 of 42 cases. Seventeen of these cases were relieved by observation on complete rest and reassurance. Sixteen cases were managed by anterior nasal packing and 4 were given posterior nasal packing. In 2 cases local electrocautery was used to stop bleeding points. Seven cases needed more than one conservative intervention. Three cases, that had bleeding through growth, were subjected to surgical resection. Sixteen cases were relieved with outdoor management only, while 26 required admission in ENT indoor. Most patients were discharged in 1 to 7 days' time. One patient had severe epistaxis with hypovolemic shock and also exhibited recurrence. Hospital stay ranged between 1 to 24 days (mead 6.8 days). Patients controlled by electrocauterization of bleeders had shortest stay of 6 days. Patients given anterior nasal packs stayed 7 days on average. Cases given posterior nasal pack required 10-12 days hospitalization. Recovery was good in 38 patients. Two patients left against advice and 2 were referred to other hospitals.

Discussion

Bimodal peak in age incidence of epistaxis is reported [6]. The age 34, as mode, observed in patients of this study, is younger than reported in a larger Indian study [8]. Majority of cases in the study were traumatic which tends to be more common in younger patients [4-6]. Male preponderance observed in present study is in agreement with other reports [9-11]. The majority, traumatic, idiopathic and hypertensive etiologies of epistaxis found in present study is also consistent with other reports [12-14]. Much greater role has been attributed to hypertensive etiology in epistaxis in Indian [8], as well as a Thai study [13].The need for regular blood pressure check up in epistaxis patients and due address to hypertention is thus emphasized. Differences in our findings may be due to such patients having past history of epistaxis and knowledge of their disease opted for tertiary care centres and private hospitals. Treatment of epistaxis involves resuscitation measures, establishing identification of bleeding points to tackle and treating cause of epistaxis [15]. Treatment goals are haemostasis, shorter hospital stay, minimization of complications and costs of care [8, 15, 16]. Non surgical measures yield successful haemostasis in most cases [17]. Anterior nasal packing was frequently successful in most patients. Those, requiring posterior packing were all hypertensive cases. As adjunct to nasal packing, the normotensive patients were prescribed nasal decongestants. The packs were soaked in antibiotic for local effect as otherwise infection is likely. Systemic prophylaxis with antibiotic was also provided. When bleeding points were visualized, electrocautery was used successfully, without adverse consequences of septal injury and these patients had shortest hospital stay. None of the cases had intractable epistaxis to require arterial ligation or embolization strategies. Blood transfusion too, was not needed in any case.

Conclusion

The study results suggest that improved nasal maneuvering with availability of nasal endoscopes, should further increase success rate of epistaxis management at large. Electrocautery option may also be so facilitated, for increased adoption to improve quality of care.[18]

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Source of Support: Nil
Conflict of Interest: None