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Epistaxis in Childhood – A Study on the Idiopathic Component:

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ABSTRACT:

BACKGROUND

Epistaxis is a common innocuous event in childhood.

METHODS:

It is a prospective observational study conducted in tertiary care hospital. Patient under the age of 12 years presenting to the out patient department with complains of epistaxis were observed, treated and the follow up was analysed.

RESULTS:

Out of the total number (190) children males out numbered the females. The total number of children were grouped into 2 based on the investigation and etiology with associated cause (n=142) with no associated cause(n=48). The first group was treated in the way befitting the disease. The other group was treated with topical saline nasal drops, topical Xylometazoline drops, oral antihistaminics and the patient were followed up. 97.4% of the patient belonging to the non causal group did not need any intervention and did well on follow-up.

Key words: Aetiology, Children, Epistaxis, Management

I. INTRODUCTION:

Epistaxis is a common problem in pediatric population. It is rare in children younger than 2. Peak prevalence is in the 3-8 years.*(Murray et al 1995).* Apart from other causes, environment plays an important role in epistaxis, as it is more frequent in dry environments and is often seasonal. Epistaxis of idiopathic origin tend to be benign and is managed.

Sometimes epistaxis may herald a neoplasm or it may be a bleeding diathesis or the cause may be local (foreign body,trauma). The treatment of epistaxis require a systemic approach with proper investigation and the options very according to the etiology, site and severity of the bleeding *(Ciaran &Owain, 2009).*

II. METHODS:

This was a prospective observational study conducted in a medical college and hospital in eastern India. Pediatric patient less than 12 years of age presenting with epistaxis were followed from June 2018 to December 2019. The patient were divided into 2 major groups based on etiology identified. Patient particulars, demographic profile, investigation done with the etiology, the management done and the follow up data were documented, tabulated and analysed.

III. RESULTS:

Total 190 patients of less than 12 years were followed up in the study periods. Males put numbered female. Family history was found to be 14.5% of the children. The patient with no etiology identified on investigation were branded to be suffering from idiopathic epistaxis. For acute bleeding, simple measures like pinching the nose and keeping the child's head forward is sufficient to deal with. In a group B (n=48), history and examination done to rule out allergic rhinitis, nasal obstruction, rhinorrhea and edematous nasal mucosa. The patient were divided into 2 such groups.

IV. DISCUSSIONS:

Epistaxis is a common condition in children of meticulous search for the bleeder is an absolutely necessity as a significant number can be designated as idiopathic *(Watkinson,1997).* The most common cause identified as trauma or 'foreign body' in the nose and this correlates with that of other studies *(Murray & Milner,1995;Ciaran &Owain 2009)*. The second most cause was idiopathic following by bleeding diathesis and neoplasms. These patients were advised to use systemic anti-histamincs, topical decongestants and topical saline drops and were followed up at end of 1st week, 2nd week and 1 month. The seasonal variation of the nose bleeds along with its relation to stress suggests local turgence of nasal mucosa due to reactive airway/autonomic activity and this advocates the use of topical congested oral antihistaminics and topical saline drops. As drying of nasal mucosa due to air currents can be associated with idiopathic epistaxis. Previously studies were conducted to device a modality to manage idiopathic epistaxis. The use of electric cautery, caustic agents like silver nitrate, trichloroacetic acid petroleum jelly, oil based antiseptic creams were put forward *(Ruddy et al 1999).* Other less common intervention

studied management protocol were tedious and required compliance and cooperation. In our present study 25.2% of patient were identified with idiopathic epistaxis and out of them 14.58% were associated with some form of upper airway allergy. The management did not change in either of the 2 subgroups. The patient on follow up were observed for recurrence and only 2(4.16%) patients returned with recurrence.

Table-1 - Gender Distribution

Total population n=190

Gender	Population
Males	126
Females	64

Table-2 - Investigation Protocol

Modalities of Investigation	Group-A(n=142)	Group-B(n=48)
Anterior Rhinoscopy	Foreign body, Septal spur, Local mucosa trauma (n=80)	-
Hematological profile	Haemophilia,Thrombocytopenia, Thalassemia(n=34)	-
Nasal endoscopy	Haemangioma, nasal polyp, nasopharyngeal tumours, prominence of blood vessels(n=24)	-
CECT nose and PNS	Neoplasms(n=4)	-

Table-3 - Division into 2 Subgroups :

Associated 2 subgroups	Group B1 (n=8)	Group B2(n=40)
Complaining of nasal obstruction, upper airway allergy	n=5	-
Endoscopy showing edematous nasal mucosa	n=2	-
Associated with stress	-	n=15

Table-4 - Follow up Data (4.166)

Recurrence of epistaxis	Group B1	Group B2
n=2	n=1	n=1

V. CONCLUSION :

25.2% were not associated with any medical conditions. According to some authors, idiopathic epistaxis can improve on its own, but the simple modality of management in out study yielded good results and this can be put forward as a primary case for idiopathic epistaxis.

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