

Original Research Article

Epistaxis in children: a clinical study

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ABSTRACT

Background: Epistaxis is a common condition among children. Most cases are due to vascular fragility in the nasal vestibule aggravated by digital trauma. Epistaxis is rare below 2 years. 30% of children of all children between 0-5 years, 56% aged between 6-10 years, 64% of those aged between 11-15 years have had at least 1 episode of epistaxis in their lifetime.

Methods: A retrospective analysis was done on 56 patients of nasal bleed, at Institute of child health and Hospital for children / Madras Medical College, Chennai, between June 2015 - June 2016. The records of children were analysed. All the patients under went blood investigation. The statistical analysis was done for the age group.

Results: There were 56 cases of nasal bleed enrolled in our study, out of which 35 were boys and 21 girls. The most common age group was between 6-10 years accounting for 27 cases. In laterality of nasal bleed right side was common. The most common site in nostril noted was from little's area of nasal septum in 27 cases. The most common cause was idiopathic in 15 cases. Most of the cases were managed conservatively.

Conclusions: Epistaxis is a common clinical condition among the paediatric age group. In all cases, ENT examination should be done to rule out nasal pathology or foreign body in nasal cavity and haematology workup is necessary. Majority of nasal bleed stops with digital pressure.

Keywords: Paediatric, Nasal bleed, Clinical study

INTRODUCTION

Epistaxis is a common condition among children. It may generate considerable distress and anxiety amongst parents and caretakers. Most cases are due to vascular fragility in the nasal vestibule aggravated by digital trauma, the other causative factors are allergic rhinitis, trauma, infections, anatomical variations, benign and malignant neoplasms and bleeding disorders.¹ Nasal bleeding has been attributed to hot weather, but different studies reveal different seasonal variations.^{2,3} Epistaxis is rare below 2 years. 30% of children of all children between 0-5 years, 56% aged between 6-10 years, 64% of those aged between 11-15 years have had at least 1

episode of epistaxis in their lifetime.⁴ The objective of this study is to find the causes of nasal bleed in children presenting to our ENT department.

METHODS

A retrospective analysis was done on 56 patients of nasal bleed, at Institute of child health and Hospital for children / Madras Medical College, Chennai, between June 2015 - June 2016. All the patients who presented with/had history of nasal bleed were enrolled for the study. The records of age, sex, etiology, anterior rhinoscopy/diagnostic nasal endoscopy, management were noted. All the patients under went blood investigation complete

haemogram, bleeding time, clotting time. The statistical analysis was done for the age group.

RESULTS

The records were analysed. There were 56 cases of nasal bleed enrolled in our study. There were 32 children from urban area and 24 children from rural area with nasal bleed (Figure 1). 35 were boys and 21 girls with most common age group was between 6-10 years accounting for 27 cases, 11-12 years 16 cases and 0-5 year's 13 cases (Table 1). The mean age group was 8.4 years. In laterality of nasal bleed right side was common side to be involved in 26 cases, left side in 20 cases, 10 from both sides (Table 2). The most common site in nostril noted was from little's area of nasal septum in 27 cases, bleeding point could not be ascertained in 16 cases, from lateral nasal wall in 7 cases and diffuse nasal bleed in 6 cases (Table 3). The most common cause for nasal bleed in our study was idiopathic in 16 cases; bleed due to digital picking in 13 cases, upper respiratory tract infection/ acute sinusitis in 11 cases, trauma in 9 cases, foreign body in nasal cavity in 6 cases, haematological malignancy in 1 case (Table 4). Treatment given was conservative management, includes adequate digital pressure/ antibiotics in 45 cases, foreign body removal in 6 cases, nasal packing in 4 cases and referred to haematologist for further evaluation/ management in 1 case (Table 5). Blood transfusion was done in 1 case due to leukaemia.

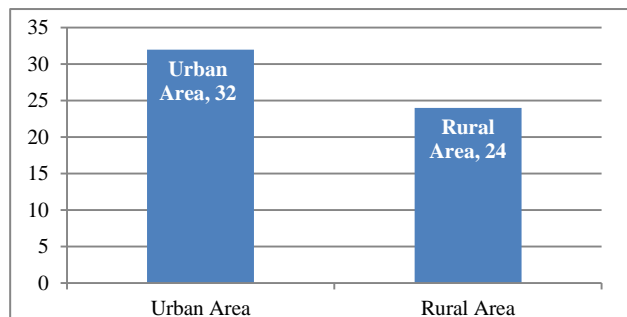


Figure 1: Demographic profile.

Table 1: Age group of children with nasal bleed and gender.

Age	Number of children	Gender
0-5 years	13	Boys-35
6-10 years	27	Girls-21
11-12 years	16	
Total	56	

Table 2: Laterality of nasal bleed.

Side	Number of cases
Right	26
Left	20
Both nostrils	10

Table 3: Site of nasal bleed.

Site of nasal bleed	Number of cases
Little's area	27
Not ascertained	16
Lateral nasal area	07
Diffuse	06

Table 4: Etiology for nasal bleed.

Etiology for nasal bleed	Number of cases
Idiopathic	16
Digital picking	13
Upper respiratory tract infection/Sinusitis	11
Trauma	9
Foreign body nasal cavity	6
Haematological disorder	1

Table 5: Management of nasal bleed.

Methods of management	Number of cases
Digital pressure/Antibiotics	45
Foreign body removal	06
Nasal packing	04
Haematological referral	01

DISCUSSION

In our study there were 35 boys and 21 girls, similar to study by Sandoval et al, that epistaxis is common among boys.⁵ The mean age group was 8.4 years. The most common age group involved was 6-10 years in 27 cases, 16 cases in 11-12 years, which is similar to other studies that most common age group of nasal bleed is between 6-10 years.⁶ The area from where the nasal bleed was from little's area in septum in consistent with study by Saurabh et al, Philip et al.⁷⁻⁹ The most common cause for nasal bleed in our study was idiopathic in 16 cases, bleed due to digital picking in 13 cases, upper respiratory tract infection/ acute sinusitis in 11 cases in our study. In the study by Watkinson, the majority of children having spontaneous haemorrhage is of venous origin from little's area where number of arteries anastomose forming Kiesselbach's plexus under thin mucosa, with bleeding resulting from region, exposed to dry air or minor trauma. Crusts and scabs form causing itching, which in turn lead to trauma by digital picking.¹⁰ In 45 cases, digital pressure stopped the nasal bleed, similar to the other studies.¹¹ Foreign body removal was done in 6 cases, nasal packing was done for 4 cases. In the blood investigation we encountered abnormal test result in 1 case and haematology opinion sought where leukaemia was diagnosed and referred to haematologist for further management.

CONCLUSION

Epistaxis is a common clinical condition among the paediatric age group. Most common cause is idiopathic in

nature, with the most common area is from the little's area in the anterior part of the nasal septum. In all cases ENT examination should be done to rule out nasal pathology or foreign body in nasal cavity and haematology workup is necessary. Majority of nasal bleed stops with digital pressure, intervention like foreign body removal and nasal packing for diffuse bleed is necessary.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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