

Knowledge, Attitude and Practice in First Aid Management of Epistaxis by Accident and Emergency Clinical Staff at Kenyatta National Hospital.

P. Mugwe¹, K. J. Kamau² and O.K. Nyambaka³

¹Thematic Head Section of Otorhinolaryngology, Head and Neck Surgery, department of Surgery University of Nairobi.

²Otorhinolaryngology, Head and Neck Surgery, Kenyatta National Hospital, Nairobi

³Registrar Department of Surgery, University of Nairobi.

Correspondence to: Nyambaka O. Kevin, Email: nyambakaok@yahoo.co.uk

Background: Epistaxis is one of the commonest emergencies in Accident & Emergency and Ear, Nose & Throat departments. A vast majority of these patients settle with simple standard first aid measures. The aim of this study was evaluate knowledge, attitude and practice in first aid management of epistaxis among the clinical staff at the Accident and Emergency (A&E) Department of Kenyatta National Hospital, Kenya.

Methods: This was a prospective descriptive cross-sectional study conducted at the Accident and Emergency Department of Kenyatta National Hospital, Kenya. The principal researcher administered a questionnaire to the clinical staffs who were doctors and nurses in the department.

Results: Data was collected from 70 clinical staff between October and December 2010. Nurses were the most respondents (68.6%); 17.1% were medical officers and 14.3% were senior house officers. Majority of the respondents had worked for over 10 years after highest qualification. The commonest first aid measures reported to be known by respondents included pinching the nose (94%), nasal packing (80.6%) and sitting leaning forward position (76.1%). Only 38.1% of respondents demonstrated the correct site for pinching the nose. The main source of information for first aid measures was the curriculum in training (64.2%) while 16.4% sourced from a first aid course they had done. On positioning of patient with epistaxis, 60% gave correct responses while 51% correctly said patient should be referred if epistaxis persists. All the 70 respondents felt that first aid was necessary in treatment of epistaxis. Majority (72.9%) of the respondents said they had ever given first aid to a patient with epistaxis.

Conclusion: The clinical staffs in the A & E Department have inadequate knowledge on the standard first aid measures of epistaxis. However, most had good attitude and had provided first aid to patients presenting with epistaxis. There is need for training the staff on these measures.

Keywords: Epistaxis, first aid, clinical staff.

Introduction

Management of epistaxis dates back to the fifth century BC, when Hippocrates described pressure on the alaenasi as an effective way of controlling nose-bleeds². Epistaxis is one of the commonest emergencies in Accident and Emergency (A&E), and Ear, Nose and Throat (ENT) departments^{3,4}. A vast majority of these patients settle with simple standard first aid measures⁵. The measures that are widely accepted were formulated by St. John's Ambulance and they include¹:

- (1) Position - sitting and leaning forward,
- (2) Pressure - applied to the fleshy part of the nose (alaenasi) for 10-15 minutes,
- (3) Swallowing - breathing gently through mouth, avoiding swallowing any blood, and
- (4) Referral if nose bleeding persists.

Despite the prevalence of epistaxis, these first aid measures are surprisingly poorly known^{5,6}. The aim of this study was therefore to evaluate knowledge, attitude and practice of these measures by the clinical staff at the Accident and Emergency department of a national referral hospital.

Subjects and Methods

This was a prospective descriptive cross-sectional study conducted at Kenya's biggest national and teaching hospital, Kenyatta National Hospital. It involved clinical staffs, who for the purpose of this study were doctors and nurses working at the accident and emergency department during the study period. The study was conducted between October and December 2010 using a structured principal-administered questionnaire. The participants were recruited upon signed a consent to participate in the study.

The questionnaire contained questions inquiring into knowledge on the first aid measure as well a demonstration by the staff the site of applying nasal pressure. It also inquired on attitude and practice on first aid management of epistaxis. The data collected were analyzed by software SPSS version 12.0.

Results

Data was collected from 70 clinical staff at the accident and emergency department using questionnaires which were filled by the principal researcher. Nurses were the most respondents (68.6%) while 17.1% were medical officers and 14.3% were senior house officers. Majority of the respondents had worked for over 10 years after their highest qualification. Further analysis relating to duration of working after attaining highest qualification and knowledge on the four measures of first aid in epistaxis showed no statistical significance with p-values being more than 0.05.

The commonest first aid measures reported to be known by respondents were pinching the nose (94%) and nasal packing (80.6%) as shown in Table 1. The majority (75.7%) of the respondents had no formal training course on first aid management of epistaxis. A chi-square test was run at 95% confidence level relating first aid course and the four measures of first aid. It showed that the only statistical significance was with the duration of pinching the nose and having undergone training in first aid of epistaxis.

On knowledge on positioning of patient with epistaxis, overall 60% gave correct responses with nurses giving the highest correct responses (66.7%) followed by senior house officer (60.0%) and medical officers (33.3%). Only 38.1% of respondents demonstrated the correct site for pinching the nose and 33.3% overall gave the correct duration of pinching. On the advice given to patients with epistaxis if blood flows into the mouth, 48.6% respondents gave the correct response while 58.6% said correctly that the patients should also be advised to open the mouth and breathe through it. On if epistaxis persists in spite of first aid, 51% correctly said patient should be referred urgently to a specialized hospital or personnel.

On attitude, all the 70 respondents said that first aid was necessary in treatment of epistaxis. A similarly high percentage (67.2%) said that any clinical staff familiar with first aid should provide it to patients presenting with nose bleeding. Also, 91.4% said there was need to train clinical staff at the accident and emergency on first aid measures of epistaxis.

Regarding practice, 72.9% of the respondents said they had ever given first aid to patients with epistaxis while 54.3% reported to have taught patients with epistaxis first aid measures

Table 1. First Aid Measures Reportedly Known by Respondents.

First aid measure known.	No. of respondents	Percentage
Pinching the nose	63	94.0
Nasal packing	54	80.6
Sitting leaning forward	51	76.1
Giving hemsamic acid	34	50.7
Breathing through the mouth	29	43.3
Avoid blowing the nose	26	38.8
Giving IV fluids	23	34.3
Cauterization	18	26.9
Referral to ENT specialist if persists.	18	26.9

Discussion

The respondents in this study were nurses, medical officers, and senior house officers and it was expected that their levels of education will positively influence the knowledge, attitude and practice on the first aid management of epistaxis. Duration of working after completion of their highest education was also long with half of the respondents having worked for more than ten years after completion of training. However, analysis showed no significant relationship between post training duration and knowledge on first aid measures in epistaxis. Majority (95.7%) of the respondents said they were familiar with standard first aid measures of epistaxis. However, more than three quarters (75.7%) of the respondents had no formal training on first aid management of epistaxis. Ho EC¹³ in 2008 reported a similarly high number (83.3%) of A & E staff not had formal training on first aid management of epistaxis. This lack of formal training can directly lead to inadequate knowledge on the first aid measures as it's expected that the training has a great impact on the knowledge possessed on the measures.

The first aid measure known by most of the respondents was pinching the nose (94.0%) and nasal packing (80.6%). Adhikari²³ in 2006, found nasal packing to be the most common first line measure used by accident and emergency clinical staff. This finding was similar to other studies that showed that use of nasal packing was first line management of epistaxis without attempt at First Aid as shown by Sonigra⁶, Ho EC¹³, and Klossek¹⁴. This can be attributed to lack of adequate knowledge on the first aid measures and lack of training in first aid. Sixty percent (60%) of respondents described the correct position which a patient with nose bleeding should be placed and further evaluation showed that the level of education possessed by the respondents was significant to the knowledge on positioning of a patient with epistaxis (P-value of 0.000). In a study by Strachan¹⁹ on the members of the public, only 36% gave a correct position. This shows that academic qualifications lead to better knowledge on first aid measures.

Despite 94% of the respondents having known that pinching the nose was first aid measure in managing epistaxis, only 38.1% correctly demonstrated pinching the nose at the alaenasi. This is in agreement with McGarry⁵ who found out that 43% of the clinical staff in accident and emergency demonstrated the correct method of nasal compression in epistaxis.

In general, the attitude of the clinical staff towards first aid in epistaxis was good. All the respondents positively said that first aid was necessary in treatment of epistaxis and majority of the respondents (91.4%) reported that there was need to train clinical staff on these measures. A high percentage (72.9%) of the respondents said they had ever given first aid to patients with epistaxis. Similarly, Ho¹³ in 2008 showed that 91% of A& E staff gave first aid to patients presenting with epistaxis. This finding is consistent with the positive attitude shown in this study. The study's null hypothesis that knowledge, attitude and practice on first aid management of epistaxis by clinical staff at A&E department of KNH, Kenya, do not differ significantly from studies done elsewhere was therefore proved to be generally true.

Conclusion

The study found that the clinical staffs at the accident and emergency department of Kenyatta National Hospital have inadequate knowledge on the standard first aid measures of epistaxis. However, generally they had positive attitude and practice towards these measures. Therefore, there is need to set protocols on training of clinical staff in the department on these measure. This will go along way in combating morbidity and mortality associated with epistaxis.

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