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KNOWLEDGE AND ATTITUDE REGARDING FIRST AID MANAGEMENT OF EPISTAXIS AMONG MEDICAL SPECIALTIES STUDENTS IN AL-MADINAH, KINGDOM OF SAUDI ARABIA

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ABSTRACT

Background: Epistaxis is bleeding from the nose or nasal cavity. It is one of the most common otorhinolaryngology emergency presenting to the accident and emergency departments worldwide. **Objective** : The aim of this study is to assess the level of knowledge and attitude regarding first aid management of epistaxis among health care related students in order to promote adequate awareness of management of this common emergency in Al-Madinah city, Saudi Arabia. **Methods:** A descriptive cross sectional study was undertaken among Health care students. Data were collected using an online questionnaire tool Including a total of 24 questions. **Results:** Data was collected from 201 Health care students at Al-Madinah using questionnaires which were filled electronically. Medical students were the most respondents (66.2%) while (33.8%) were other Health care specialties. Majority of the respondents were Interns 167(83.1%). Head trauma was one of the commonest presentation at emergency167(83.1%) followed by uncontrolled nose bleed 164 (81.6%). The commonest first aid measures when the patients get shocked were giving anti shock measures (62.2%) , Putting the patient in supine position with the head lowered down 55.2%) , Benching the nose (34.3%) and nasal packing (33.8%). Regarding the attitude toward the first aid management of epistaxis, the majority of the respondents (80.6%) demonstrated the correct position which is sitting position, holding the head forward and downward rather than backward and 73.6% gave the correct duration of pinching the nose. Only 44.3 % of respondents demonstrated the correct site for pinching the nose (soft part), While the majority 55.7% demonstrated the incorrect site (bony part). The main source of the respondents' knowledge regarding first aid management of epistaxis was Medical Curriculum(38.3%) followed by the General Practitioner (23.9%). **Conclusion :** Health care students have adequate knowledge and attitude about the first aid measures of epistaxis to provide these measures to patients presenting with epistaxis.

KEYWORDS: Epistaxis, first aid, health related specialties students**.**

INTRODUCTION

Epistaxis is a bleeding from the nose or nasal cavity. It is one of the most common presenting otorhinolaryngology emergency in the emergency departments worldwide.[1] Reports have mentioned an incidence ranging between 10%-60% of population who have suffered at least one significant episode in their life time.[2] .It is clearly evident that the problem of epistaxis constitutes a significant workload in accident and emergency as well as otolaryngology departments. Whilst some epistaxis episodes may do require an active intervention and even hospital admission, a vast majority of these patients settle with simple standard first aid measures.[3]

To certain degree, health related students are taught how to handle emergencies in an emergency hospital where drugs and other Medical requirements are available. However, the adequate knowledge required for handling an emergency without hospital facilities at the site of the accident or emergency may not be sufficient.[4,5]

Although many studies have been published on the treatment of epistaxis, the knowledge and attitude of health related students about this subject have not been documented. Thus, the purpose of this study is to assess the level of knowledge and attitude regarding first aid management of epistaxis among health care related students in order to promote adequate awareness of management of this common emergency in Al-Madinah city, Saudi Arabia.

MATERIAL AND METHODS

A descriptive cross sectional study was undertaken among health specialties students in Al-madinah, Kingdom of Saudi Arabia. The study was conducted between July and October 2016 using a semi structured

electronic self-administered questionnaire. The purpose of the study was explained to the participants, and online consent was obtained. The data were collected by using an electronic, semi-structured questionnaire which included questions concerning personal data (age, gender, speciality, clinical year and residency). Also, It is comprised of 2 sections to assess the knowledge and attitude of the students regarding the epistaxis and its first aid management

STATISTICAL ANALYSIS

Data were tabulated by using Microsoft office — Excel sheet, entered and analyzed by using SPSS, version 20.0. Ethical Committee approval was obtained before starting the study.

RESULTS

Data was collected from 201 health specialties students at Al-Madinah using questionnaires which were filled electronically. 128 (63.7%) of the respondents were female while 73 (36.3 %)were male . Medical students were the most respondents 133 (66.2%) while 68 (33.8%) were from other health specialties. Majority of the respondents were Interns. (Table 1)

Regarding the Knowledge of epistaxis, 74.6 % of the respondents think that epistaxis is an emergent case. Regarding the etiology, (175; 87.1%) of the participants respond that bleeding disorder is the commonest cause. Next common cause was Injury to nose, including a broken nose, or an object stuck in the nose (163; 81.1 %) followed by hypertension (153; 76.1 %) and Blowing the nose very hard, or picking the nose (150; 74.6 %) (Table 2).

The results regarding the knowledge of seeking medical care during the attack among participants showed that 167(83.1%) respondents said that after head trauma is one of the commonest cause to seek for emergency care followed by a nose bleed cannot be stopped after 10 to 20 minutes of direct pressure 164 (81.6%). (Table 3)

Table 4 showed that the commonest first aid measures of a shocked patient was; Anti shock treatment (62.2%), Putting the patient in Sitting position with head lowered (55.2%), compressing the nose (34.3%) and nasal packing (33.8%).

Regarding the attitude toward the first aid management of epistaxis The majority (80.6%) of the respondents demonstrated the correct position which is holding the head forward rather than backward and 73.6% gave the correct duration of pinching the nose.

Only 44.3 % of respondents demonstrated the correct site for pinching the nose picture (A), While 55.7% of the respondents demonstrated the incorrect site picture (B)

A – lower down

B – higher up

The main source of the respondents' knowledge regarding first aid management of epistaxis was Medical Curriculum(38.3%) followed by the General Practitioner (23.9%). (Table5).

Table 1: Sociodemographic data:

Gender	**Frequency**	**Percent %**
Male	73	36.3
Female	128	63.7
Specialty		
Medicine	133	66.2
dentistry	17	8.5
pharmacology	10	5.0
nursery	10	5.0
laboratory science	7	3.5
rehabilitation/physiotherapy	9	4.5
clinical nutrition	13	6.5
other medical specialties	2	1.0
Level of Education		2.5
1st semester (1st year)	5	9.5
2nd semester (2nd year)	19	16.4
3rd semester (3rd year)	33	18.4
4th semester (4th year)	37	9.0
5th semester (5th year)	18	7.5
6th semester	15	7.0
7th semester	14	2.5
8th semester	5	23.4
Intern	47	4.0
other	8	
Total	201	100

Table 2 : Causes of Epistaxis

Causes of Epistaxis	No. of respondents	Percentage%
irritation due to allergies, colds, sneezing or sinus problems	122	60.7
Very cold or dry air	115	57.2
Blowing the nose very hard, or picking the nose	150	74.6
Injury to nose, including a broken nose, or an object stuck in the nose	163	81.1
Deviated septum	47	23.4
Chemical irritants	74	36.8
Overuse of decongestant nasal sprays	59	29.4
Hypertension	153	76.1
Bleeding disorders	175	87.1
Liver diseases	72	35.8
Dental Causes	20	10.0
Neoplasm	104	51.7
Medication(salicylates, analgesics,anticoagulant)	104	51.7

Table 3 : when to seek for emergency care

when to seek for emergency care	No. of Respondents	Percentage (%)
A nosebleed cannot be stopped after 10 to 20 minutes of direct pressure.	164	81.6
Nosebleeds recur 4 or more times in 1 week after you have tried prevention measures.	141	70.1
Nosebleeds become more severe or more frequent.	156	77.6
After a head trauma	167	83.1

Table 4 : What should you do With a shocked patient

What should you do if the patient get shocked	No. of Respondents		Percentage (%)	
	Yes	No	Yes	No
Examine the nose	51	150	25.4	74.6
Compress the nose	69	132	34.3	65.7
Put the patient in sitting position with the head lowered.	111	90	55.2	44.8
Put the patient in supine position with the head backward .	39	162	19.4	80.6
Nasal packing	68	133	33.8	66.2
Start anti shock treatment.	125	76	62.2	37.8

Table 5 : sources of the respondents' knowledge

Source of Knowledge		Frequency	Percent
	Medical curriculum	77	38.3
	General practitioner	48	23.9
	Nurse	7	3.5
	workshops	25	12.4
	Guessing	44	21.9
	Total	201	100.0

DISCUSSION

Epistaxis is defined as acute hemorrhage from the nostril, nasal cavity, or nasopharynx. It is a frequent emergency condition presented to emergency department (ED) and usually leads to significant anxiety in patients and clinicians. However, the vast majority of patients who present to the Emergency Department with epistaxis may be treated successfully by an emergency physician by performing first aid management[6]. First aid provider should be able to assess, provide care and directed to appropriate medical care.

The respondents in this study were students from different medical specialties including Medicine, dentistry, pharmacology, nursery, laboratory science, rehabilitation/physiotherapy, clinical nutrition and other medical specialties.

It was expected that their levels of education will positively influence the knowledge and the attitude on the first aid management of epistaxis. Regarding the Knowledge of epistaxis, 74.6 % of the respondents think that epistaxis is an emergent case and 87.1% of them respond that Bleeding Disorder is the commonest cause of epistaxis.

The commonest first aid measures reported to be known by respondents when the patients get shocked, were giving Anti shock treatment (62.2%) , Putting the patient in supine position with the head lowered (55.2%),

compressing the nose (34.3%) and nasal packing (33.8%). The results of our study concerning first aid measures of epstaxis were not far from the result of study conducted by P. Mugwe in 2014[7] in which The first aid measure known by most of the respondents was pinching the nose (94.0%) and nasal packing (80.6%). Unlike to our findings, several studies conducted by Adhikari in 2006[8], Ho EC 2008[9], and Klossek 2006[10], found nasal packing was the most common first line measure used by emergency clinical staff. This may be attributed to lack of adequate knowledge on the first aid measures and lack of training in first aid in previously mentioned studies. The results of our study showed that the majority (80.6%) of the respondents demonstrate the correct position which is holding the head forward rather than backward and 73.6% gave the correct duration of pinching the nose. Similar to the results of Mugwe in 2014[7] in which Sixty percent (60%) of respondents described the correct position which a patient with nose bleeding should be placed, while the study done by Strachan D[11] only 36% gave a correct position.

Regarding the correct site for pinching the nose Only 44.3 % of respondents demonstrated the correct site, While the majority 55.7% of the respondents demonstrated the incorrect site. in accordance to Mugwe in 2014[7] only38.1% correctly demonstrated pinching the nose at the alae nasi.

In general, the attitude of the medical specialties students towards first aid in epistaxis was good.

CONCLUSION

Health related specialties students have adequate knowledge and attitude on the standard first aid measures of epistaxis enabling them to provide first aid management to patients presenting with epistaxis.

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