The Initial Management of Epistaxis

Abstract:
R Tanner, MS Harney
Bon Secours Hospital, College Rd, Cork

Epistaxis affects up to 60% of people. The basic first aid management of epistaxis is clearly stated in the literature and guidelines. Anecdotal evidence would suggest that many patients are not correctly taught this technique and being conveyed to patients by their doctors. The aim was to assess current knowledge of epistaxis first aid management and the principle source of education in epistaxis control. This was a single centre cross-sectional study. The study population included those presenting to otolaryngology outpatients with epistaxis. 20 patients participated in this study over a 7 month period. Five (25%) patients did not use compression during an episode of epistaxis. Nine (45%) patients that used the compression technique failed to compress the lower one-third of the nose. Only two (10%) of patients identified their GP as having taught them first aid for epistaxis. Knowledge of epistaxis management is poor. Education regarding the basic principles of first aid for epistaxis may reduce morbidity and unnecessary consultations from health professionals.

Introduction
Epistaxis is defined as acute haemorrhage from the nostril, nasal cavity, or nasopharynx. In the majority of cases epistaxis is of anterior origin with the Kieselbach plexus in Littles area being the culprit vessel in 90% of cases. Posterior bleeds are less common, though may be more challenging to control. The true prevalence of epistaxis is largely unknown as many cases do not require medical attention and thus go unreported. A frequently cited study conducted in 1975 estimated that up to 60% of people experience an episode of epistaxis in their lifetime, with 8% requiring medical attention. The majority of patients present to hospital after attempting to control their epistaxis at home due to lack of knowledge and guidance from their General Practitioners. General Practitioners are often the primary health professionals managing epistaxis in a haemodynamically stable individual. The true prevalence of epistaxis is largely unknown as many cases do not require medical attention and thus go unreported. A frequently cited study conducted in 1975 estimated that up to 60% of people experience an episode of epistaxis in their lifetime, with 8% requiring medical attention. The majority of patients present to hospital after attempting to control their epistaxis at home due to lack of knowledge and guidance from their General Practitioners. General Practitioners are often the primary health professionals managing epistaxis. Based on clinical practice experience and literature there appears to be poor understanding of the correct first aid management. The primary aim of this study was to assess current knowledge of epistaxis first aid management and estimate the proportion of patients presenting correct technique. The secondary aim of the study was to identify the principle source of education in epistaxis control.

Methods
This was a single centre cross-sectional study conducted between July 2013 and March 2014 at the Bon Secours Hospital Cork. The study population comprised of patients with a history of epistaxis presenting to the otolaryngology outpatient department during this time period. Patients were eligible if they had a history of recurrent epistaxis and were capable themselves or with assistance of performing epistaxis control. There were no exclusion criteria with regard to age. An original data sheet was furnished to record the data. Section one focused on recording patient demographics and the frequency of epistaxis during the year. Section two examined the control technique and identified who taught that technique. The potential areas of nasal compression were divided into; lower third, middle third and upper third. Compression duration was defined as less than one minute or more than one minute. An open ended question regarding possible additional first aid techniques used completed section two. Ethical approval for this study was attained from the Cork Research Ethics Committee and the Bon Secours Ethics Committee.

Results
20 patients participated in this study over a 7 month period. Those participants ranged from 18 months to 74 years of age. The duration since the first episode of epistaxis ranged from one month to 40 years and the frequency of epistaxis ranged from once a year to weekly. The majority of cases occurring in those aged 2-10 or those aged 45-65. Epistaxis in those less than ten years of age is generally anterior in origin whereas those over 10 years of age are more likely to have a posterior bleed which is often more severe. It should be noted that epistaxis before the age of two is rare, and may be associated with injury, or serious illness. Epistaxis is often minor and seldom requires hospital treatment in otherwise healthy children. The key to managing haemodynamically stable patients with no airway compromise is compression of the nasal area for 5-10 minutes.

This provides tamponade for anterior septal vessel. The basic first aid management of epistaxis is clearly stated in the literature and guidelines. The National Institute for Clinical Excellence (NICE) focuses on two main points. Firstly the patient should sit up and lean forward. Secondly the patient should compress the cartilaginous part of the nose for 10-15 minutes without releasing. It is important that the lower third of the nose is included in the compression. Failure to compress this area will result in persistent bleeding from the lower third. The addition of an ice pack to the dorum of the nose is also recommended by some. The basic management of epistaxis on site is to sit up and apply manual pressure to the site of bleeding. Anecdotal evidence would suggest that many patients do not understand what is required to control their epistaxis and are not taught this by their doctors. Based on clinical practice experience and literature there appears to be poor understanding of the correct first aid management. The primary aim of this study was to assess current knowledge of epistaxis first aid management and estimate the proportion of patients presenting correct technique. The secondary aim of the study was to identify the principle source of education in epistaxis control.

Discussion
The management of epistaxis in a haemodynamically stable individual is clearly outlined in clinical guidelines. However there appears to be a poor knowledge base among patients. The fact that 25% of participants did not compress the nose to control their epistaxis during this time period. Patients were eligible if they had a history of recurrent epistaxis and were capable themselves or with assistance of performing epistaxis control. There were no exclusion criteria with regard to age. An original data sheet was furnished to record the data. Section one focused on recording patient demographics and the frequency of epistaxis during the year. Section two examined the control technique and identified who taught that technique. The potential areas of nasal compression were divided into; lower third, middle third and upper third. Compression duration was defined as less than one minute or more than one minute. Additional techniques were used to control epistaxis; 25% (n=5) of participants inserted a tissue into their nose to aid haemostasis and 20% (n=4) used other techniques including; a wet cloth, ice packs and putting their head back. Self-taught epistaxis first aid was most common (n=6). Other sources of education regarding management included family members. Notably only 10% (n=2) identified their GP as a source of education, but (n=3) of those who compressed the upper 1/3 of their nose had not been taught by a health care professional how to correctly manage epistaxis.

The majority (73%) of patients that attend an ENT surgeon with an epistaxis are not using proper control technique. It may be that those patients that do not practice proper control techniques and having persistent uncontrolled bleeds and have to be referred to an ENT clinic. There is a strong erroneous belief in the community that compressing the nasal bones, or just below the nasal bones is the correct treatment for epistaxis. The first stage in GP management of epistaxis should be instruction on the correct compression technique; sustained compression should be applied to include the lower one-third of the nose. The true prevalence of epistaxis is largely unknown as many cases do not require medical attention and thus go unreported. A frequently cited study conducted in 1975 estimated that up to 60% of people experience an episode of epistaxis in their lifetime, with 8% requiring medical attention. The majority of patients present to hospital after attempting to control their epistaxis at home due to lack of knowledge and guidance from their General Practitioners. General Practitioners are often the primary health professionals managing epistaxis. It would be reasonable for GPs to provide basic advice on the management of future epistaxis. The majority of patients that attend an ENT surgeon with an epistaxis are not using proper control technique. It may be that those patients that do not practice proper control techniques and having persistent uncontrolled bleeds and have to be referred to an ENT clinic. There is a strong erroneous belief in the community that compressing the nasal bones, or just below the nasal bones is the correct treatment for epistaxis. The first stage in GP management of epistaxis should be instruction on the correct compression technique; sustained compression should be applied to include the lower one-third of the nose.
References