

Epistaxis :Retrospective study of hospitalized patients

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نزيف الانف : دراسة استرجاعية للمرضى الراقدين في المستشفى

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بكالوريوس طب وجراحة عامة/ اختصاص طب وجراحة الأنف والأذن والحنجرة مدينة الصدر الطبية - النجف - العراق.
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الخلاصة:

يعتبر نزيف الانف من اكثر حالات الطوارئ شيوعا في اختصاص امراض الانف والاذن والحنجرة الهدف من هذه الدراسة هو لدراسة حالات النزف الحادة التي تم ادخالها الى المستشفى للتعرف على الطرق المتبعة في علاجها وهي دراسة استرجاعية وصفية واجريت في قسم الانف والاذن والحنجرة في مدينة الصدر الطبية /النجف /العراق. اخذت المعلومات من سجلات المرضى الراقدين بسبب النزيف من الانف من الفترة ما بين كانون الثاني 2009 الى كانون الاول 2012، وتضمنت هذه المعلومات العمر والجنس ونوع النزيف كونه امامي ام خلفي والطرق التي اتبعت في علاج المرضى وفترة الرقود وكذلك تمت دراسة الامراض العامة لدى المرضى والتي قد تكون مسببة للنزف اوساعدت في زيادة شدته

النتائج: تضمنت هذه الدراسة ٢٠ مريضا، ثمانية مرضى كانوا من الفئة العمرية 20 الى 29 سنة وثمانية مرضى من الفئة العمرية 60 الى 69 سنة. نسبة المرضى الذكور الى المرضى الاناث كانت 2.3: 1. شكلت نسبة النزف الامامي 50% من المرضى بينما شكل النزف الخلفي نسبة 30% . كان هناك 15 (75%) مريض يعانون من امراض اخري كان من اكثرها ارتفاع ضغط الدم : تم ايقاف النزيف بطريقة فتائل الانف الامامية لدى 12 مريض واستعملت فتائل الخلفية في ايقاف الزيف لدى 8 مرضى . وكان فترة رقود المرضى تتراوح من يومين الى سبعة ايام وبمعدل 3.85 يوم . لا وجود لحالات وفاة في هذه الدراسة .

Background: Epistaxis is a common otolaryngological emergency and is often due to lesions within or around the nose or due systemic conditions

Aim of the study: To describe the cases of epistaxis that are admitted at our hospital

Study design: Retrospective ,descriptive study

Place and time: This is a retrospective study described the cases of epistaxis that are admitted to Al Sader Teaching Hospital ,Najaf-Iraq from January 2009 to December 2011.

Patients and method: The study evaluated 20 cases of epistaxis that were admitted in Al-Sader Teaching Medical City in Najaf –Iraq from the period of January 2009 to December 2012 .

The hospital records of the patients were reviewed and data collected regarding .age ,gender, type of epistaxis , methods of treatments, any associated systemic disease(s) and the time of hospital stay . These variables were collected , tabulated , analyzed and compared with other similar studies,

The results: Twenty cases of epistaxis that required admission to Al-Sader Medical city were enrolled in our study. We found that epistaxis has bimodal age of presentation with 8 (40%) patients at age 20-29 year and 8(40%) patients at age of 60- 69year. Male to female ratio was (2.3:1). Anterior epistaxis was more common than posterior epistaxis.15 patients (75 %) had some sort of systemic diseases; the most common was hypertension in 8 (40%) patients. Non surgical method of treatment in the form of nasal packing was performed in all patients. The mean hospital stay was (3.85) days. NO mortality detected in our study.

Key words: epistaxis. anterior posterior. co-morbidity. nasal packing

Introduction:

Epistaxis is a condition that causes anxiety, not only to the patient, but also to the doctor responsible for the patient's treatment. Nosebleeds are more common in men, frequency increases with age and with conditions such as high blood pressure

Depending on the site of origin, epistaxis is classified as either anterior or posterior; if the site of bleeding is visible in the anterior rhinoscopy it is classified as anterior epistaxis. The site of bleeding was classified as posterior when it was not possible to see it in the anterior rhinoscopy.⁽¹⁾

Anterior bleedings are frequent and are easily managed. Posterior haemorrhages represent only about 20% of the cases, but they can be much more difficult to control⁽²⁾

Both conservative and surgical treatment modalities have been used in the treatment of epistaxis. Conservative measures conventionally include cauterization of the bleeding site, anterior nasal packing and posterior nasal packing⁽³⁾

Surgical procedures (in form of arterial ligation) have been used as an alternative when non-surgical management has failed⁽¹⁾

Other management options include:

- 1- Angiographic embolisation
- 2-Fibrin glue
- 3-Endoscopic electrocautery
- 4-Hot water irrigation
- 5-Laser⁽⁴⁾

Patients and method:

This study evaluates cases of epistaxis that are admitted at Al-Sader Teaching Medical City in Najaf –Iraq from the period of January 2009 to December 2012 .

This is retrospective study , charts of the patients reviewed and data collected regarding the age ,gender, type of epistaxis , methods of treatments, any associated systemic disease(s) and time of hospital stay , these variables are collected , tabulated , analyzed and compared with other similar studies

Results:

Table no. 1: age distribution

Age	No. of the patients	Percentage
20-29	8	40 %
30-39	1	5 %
40-49	1	5 %
50-59	2	10 %
60-69	8	40 %
Total	20	100 %

Eight (40 %) patients lies in the age range of 20-29 year and eight (40 %) patients found in the age group 60 to 69 year old and this what called as bimodal age of presentation.

Table (2): Gender distribution

Gender	No. of patients	Percentage
Male	14	70 %
Female	6	30 %
Total	20	100 %

Twenty patients enrolled in the study , 14 patients were male and 6 patients were female.

Table 3: Types of epistaxis

Type of epistaxis	No. of patients	Percentage
Anterior	10	50 %
Posterior	6	30 %
Both	4	20 %
Total	20	100 %

This table shows that anterior epistaxis is more common than posterior epistaxis in the patients that require hospitalization for epistaxis .

Table (4): Associated systemic diseases and drug intake

Systemic diseases	No. of patients	Percentage
Hypertension	8	40 %
Ischemic heart diseases	3	15 %
Diabetes mellitus	1	5 %
Thrombocytopenia	1	5 %
Warfarin intake	1	5 %
Antiplatelet intake	1	5 %
Absent systemic diseases (idiopathic)	5	25 %
Total	20	100 %

Out of 20 patients enrolled in our study , we found that 15 patients have certain systemic diseases ,also with antiplatelet or anticoagulant drug intake . Table 4 shows distribution of systemic diseases and drug ingestion in those 15 patients

Table 5: Methods of treatment

Method of treatment	No. of patients	Percentage
Anterior nasal packing	12	60 %
Posterior nasal packing	8	40 %
Cautry	0	0 %
Surgical procedures like arterial ligation and septoplasty	0	0 %
Total	20	100 %

The above table shows that nasal packing is the most commonly used method in treatment of epistaxis in our hospital .

Table (6): Duration of hospital stay

Days of hospital stay	No.of patients	Percentage
2	2	10 %
3	11	55 %
4	1	20 %
5	2	10 %
6	2	10 %
7	2	10 %
Total	20	100%

Table 6 shows that duration of hospitalization for epistaxis was ranged from 2 to 7 days

Discussion:

We studied patients who were admitted to Al- Sader medical city from 2009 to 2011 because of epistaxis.

The age range of the patients was 20 to 66 year, but in our study most of the cases were found in 2 age groups with 8 (40%)patients in 20 – 29 year age group and 8 (40%)patients in 60-69 year age group. This shows bimodal presentation of epistaxis among the patients admitted at our hospital

Akinpelo et al. Found that peak age incidence for epistaxis was 21 - 40 year (5)

Gulshan et al., found also a bimodal age presentation the first below the age of 25 year and the second group above 50 year old .(6)

Also Ritman et al., found that the age of presentation show bimodal age presentation one within 6th decade and 2nd peak at the 2nd decade (7).

Our study showed that all cases of epistaxis that require admission were adult and old patients. No pediatric case reported in our study and this is most likely due to most cases of epistaxis in pediatric patients are either self limiting or treated as outpatient and do not require hospital admission.

We found that 14 (70 %) patients were male and 6 (30 %) patients were female with male: female ratio of (2,3:1)

Gulshan et al., found that the percentage of male patients and female patients were 67.4% and 32.5% respectively with male to female ratio is 2:1 and this goes with our results (6).

Ritman Ray et al., found in their study that male patients also outnumbered the female patients with male to female ratio of 2.1:1(7)

This sex difference can be explained by the fact that male patient are more exposed to environmental factors than female patients , and also the higher prevalence of cardiovascular diseases among male patients .

Another variable we have studied was the type of epistaxis; we found that 10 (50 %) patients presented with anterior epistaxis and 6 (30 %) patients presented with posterior epistaxis and in four (20 %) patients the epistaxis was both (anterior and posterior) at the time of presentation .This goes with other studies.

Gulshan et al., found that anterior epistaxis was more common than posterior epistaxis with percentages of 71.6% and 28% respectively (6).

Gilyoma JM. et al., found in their study that anterior nasal bleeding was noted in majority of the patients (88.7%).(8)

Our possible explanation that the anterior epistaxis is more common than posterior epistaxis because the sites that give rise to anterior epistaxis are more exposed to

environmental dryness and trauma than the posterior source of bleeding that are located in a relatively more protected and hidden areas.

Regarding the co-morbidity in our study: 15(75 %) patients had some sort of systemic diseases , 8 (40 %) patients were hypertensive , other diseases were ischemic heart disease(15 %) .diabetes mellitus (5 %) , thrombocytopenia (5 %) with one patient had a history of warfarin intake and one patient had antiplatelet ingestion .

We found that a high percentage (75 %) of patients that were admitted for epistaxis had some sort of co-morbidity that require special attention during their management .

Another point which is important is the need for other medical specialty to deal with cases of epistaxis that require hospitalization , so a case of epistaxis is better to be approached as a team rather than dealt with otolaryngologist alone.

Regarding other studies Iseh KR et.al. found that hypertension present in 18 % . of patients in their study.

Monjas et al .found in their study of 178 patients , among the systemic causes hypertension in 56 % ,antiplatelet treatment in 23 % ,and anti-coagulant therapy in 18.5% were predominated (10)

Smith J. et al., found that 62 % of their patients were currently taking anticoagulant or antiplatelet medication ,requiring longer in -patient stay and they concluded that a better understanding of such medication and its effects may enable more effective management of these patients (11).

Beside the principle steps of management of case of sever epistaxis (like setting an intravenous line , maintain the circulation) , the most commonly used method to stop bleeding was by nasal packing . Anterior nasal packing was performed in 12 (60 %) patients and both anterior and posterior packing were performed in 8 (40 %) patients. No cautery was used in our study . and also no case was treated with arterial ligation or embolization .

Nasal packing was successful in stopping epistaxis in all cases until the time of discharge from hospital .although we need further studies evaluating the long term benefit of nasal packing .

Akinpelu et al., found that nasal packing was adequate to control the epistaxis in most cases. (5)

Okoye BC.et al., found in their study that the most commonly used method of treatment was anterior nasal packing (50%). Posterior nasal packing accounted for 26.67% of cases (12)

Gilyoma JM, et al., found that non surgical measures such as anterior nasal packing was the main intervention method in 38,5 % of cases.(8)

Police et al., found that nasal packing was effective in stopping epistaxis in 83% of the cases in their study of 249 patients (12)

In our study the time of hospital stay was range from 2 to 7 days with the mean of (3.85) days .

Study carried out by Synderman .et al., found that the median hospital stay was 3 days (range from 1 to 10) .(13)

Gilyoma JM, et al., found that the overall mean of hospital stay was 7.2 ± 1.6 days (range 1 to 24 days).(8)

Pollice et al., found that the mean hospital stay was 4 days .(12)

Short hospital stay indicate the immediate success of conservative treatment in stopping the attack of epistaxis although we need further follow up studies to evaluate the long term benefits of these measures.

Conclusion:

Epistaxis that necessitate hospital admission can occur in both young and elderly patients, with male more affected than female. Anterior epistaxis is still exceeding the posterior one . Generally with short hospital stay .It should be approached as a team work because most of the patients have other associated morbidity that affect their

management plan . Nasal packing is still the most commonly used method of treatment at our hospital .

Recommendations:

- 1-we recommend a prospective study to evaluate the long term benefit of nasal packing and detect the rate of re-bleeding after initial response,
- 2- we recommend to enhance our knowledge and experience to apply the recent technique of endoscopic intervention of dealing with epistaxis especially the posterior type
- 3-We recommend enhancement the idea of team approach to the otolaryngology problems and teach this principle for our students and residents.

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