

Retrospective Analysis of Patients Admitted to Otorhinolaryngology Outpatient Clinics of a Tertiary Hospital with Epistaxis

Üçüncü Basamak Bir Hastanenin Kulak Burun Boğaz Polikliniklerine Epistaksis ile Başvuran Hastaların Retrospektif Analizi

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ABSTRACT

Objective: In this study, it was aimed to make a general evaluation of patients who applied to our outpatient clinic with epistaxis.

Method: The files of approximately 300 patients who were admitted to the otorhinolaryngology outpatient clinics of a tertiary hospital with the complaint of nasal bleeding between January 2009 and January 2019 were retrospectively evaluated. The patients were analyzed in terms of age, gender, month of epistaxis, etiological factors, concomitant diseases, whether blood transfusion was required, treatment methods applied and length of hospital stay.

Results: Of the 300 evaluated patients, 128 were female (42.8%) and 172 (57.2%) were male. The mean age of the patients was determined as 34.38±23.63 years (min 1-max: 89). The patients applied most frequently in February (14%) and at least in July (2.6%). Idiopathic epistaxis was detected in 240 (80%) patients. Among the identified reasons, the most frequently use of anticoagulants was detected in 11% and hypertension in 4.6% of the patients. Conservative treatment was applied to 98.4% of the patients. Hospitalization periods ranged from 1 to 11 days. Only 2 patients needed blood transfusion.

Conclusion: Considering the possible complications and mortality; taking detailed anamnesis from patients and planning the necessary treatment as soon as possible constitute the basis of diagnosis and treatment management in patients with epistaxis.

Keywords: epistaxis, nasal packing, nasal cauterization.

ÖZ

Amaç: Bu çalışmada burun kanaması ile polikliniklerimize başvuran hastaların genel bir değerlendirmesi amaçlanmıştır.

Yöntem: Üçüncü basamak bir hastanenin kulak burun boğaz polikliniklerine Ocak 2009-Ocak 2019 tarihlerinde burun kanaması şikayeti ile başvuran yaklaşık 300 hastanın dosyaları retrospektif olarak değerlendirildi. Hastaların; yaş, cinsiyet, epistaksisin olduğu ay, etyolojik faktörler, eşlik eden hastalıklar, kan transfüzyonu gerekli olup olmadığı, uygun olan tedavi yöntemleri ve hastanede kalış süreleri bakımından analiz edildi.

Bulgular: Değerlendirmeye alınan 300 hastanın 128'i kadın (%42.8), 172'i (%57.2) erkek olarak tespit edildi. Hastaların yaş ortalaması 34.38±23.63 (minimum 1-maksimum: 89) olarak belirlendi. Hastalar en sık Şubat (%14) en az Temmuz ayında (%2.6) başvurmuşlardı. İdyopatik olarak kabul edilen hasta sayısı 240 (%80) olarak tespit edildi. Tespit edilen nedenler arasında en sık antikoagülan kullanımı %11 ve hipertansiyon ise %4,6 olarak belirlendi. Hastaların %98,4'üne konservatif tedavi uygulandı. Hastanede kalma süreleri 1-11 gün arasındaydı. Sadece 2 hastanın kan transfüzyonuna ihtiyacı olmuştu.

Sonuç: Sonuç olarak gelişebilecek komplikasyonlar ve mortalite ihtimali göz önünde bulundurulduğunda; ayrıntılı anamnezin alınması ve gerekli tedavinin en kısa sürede planlanması epistaksis hastalarında tanı ve tedavi yönetiminin temelini oluşturmaktadır.

Anahtar kelimeler: epistaksis, nazal tampon, nazal koterizasyon.

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INTRODUCTION

Bleeding that occurs in the nasal cavity due to vascular damage or bleeding disorders caused by nasal mucosal damage is called epistaxis (1). It is one of the most common ear, nose and throat emergencies (2). The majority of patients control episodes of epistaxis by their own precautions. Only 6% of these patients apply to a health institution. Therefore, although its frequency cannot be determined exactly, it is thought to range between 7 and 60% (3,4). Bleeding often arises from the anterior and less frequently posterior regions of the nasal cavity. Anterior hemorrhages are usually self-limited and mostly originate from the Kiesselbach plexus in the anterior septum. Posterior bleeding occurs mainly from the Woodruff plexus formed by the branches of the sphenopalatine artery. Although rare, life-threatening bleeding can be seen (5,6). Epistaxis is a symptom, not a diagnosis. Even with mild bleeding, it disturbs the patient. It is more common in men than in women. Its frequency increases with age. It has been reported to occur more frequently in dry and cold winter months (2,7).

In this study, we aimed to make a general evaluation of the patients who applied to our clinic with epistaxis.

MATERIALS AND METHODS

Three hundred patients who applied to Bolu Abant İzzet Baysal University Medical Faculty Hospital Otorhinolaryngology outpatient clinics due to nasal bleeding between January 2009 and January 2019 were included in the study. Necessary permissions were obtained from the local ethics committee of Bolu Abant İzzet Baysal University Faculty of Medicine (2019/243) in order to review the files of the patients retrospectively. Patients whose epistaxis was controlled by intervening in the emergency department were not included in the study. Patients were analyzed in terms of age, gender, month of epistaxis, etiological factors, concomitant diseases, whether blood transfusion was required, treatment methods applied, and duration of stay if they were hospitalized.

Statistical analysis

The statistical analyses were performed using

SPSS version 21.0. The descriptive statistics were given as mean and standard deviation for the normally distributed data, median and minimum-maximum value for the non-normally distributed data, and number and percentage for the numerical data.

RESULTS

Of the 300 patients included in the study, 128 were female (42.8%), 172 (57.2%) were male, and their ages ranged from 1 to 89 years (mean 34.38 ± 23.63 years). While the patients presented most frequently in February (14%) due to epistaxis, they applied at least in July (2.6%) (Figure 1).

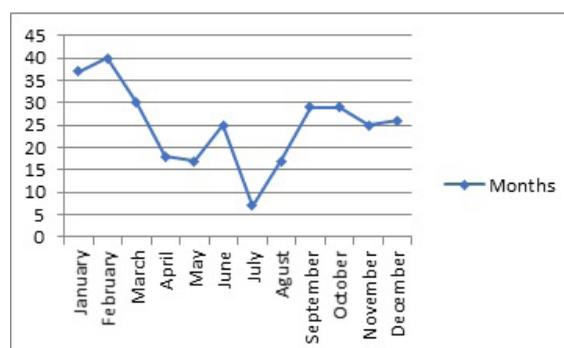


Figure 1. Months when patients apply to our clinic

The most common causes of epistaxis in patients were use of anticoagulants (11%), hypertension (4.6%), and trauma (1.6%) (Table 1).

Table 1. Etiological factors causing epistaxis in patients

Etiological Factors	n	%
Idiopathic	240	80
Use of anticoagulants	33	11
Hypertension	14	4.6
Trauma	5	1.6
Granulation tissue Formation	2	0.6
VWF* deficiency	2	0.6
Septal perforation	2	0.6
HHT**	2	0.6

*VWF: Von Willbrand Factor

**HHT: Hereditary Hemorrhagic Telangiectasia

Conservative treatment was applied to 98.4% of the patients. Surgically, septoplasty, septal perforation repair and granulation tissue excision were performed (Table 2). In addition, blood transfusion was performed in two patients.

Table 2. Treatment methods applied to patients

Treatment Methods	n	%
Conservative treatment		
Use of moisturizer	240	80
Anterior packing	15	5
Chemical cauterization	14	4.6
Electrocauterization	11	3.6
Follow-up and treatment of accompanying disease	9	3
Surgical treatment		
Septoplasty-septal perforation repair	3	1
Tumor surgery	2	0.6

The hospitalization period of the patients ranged from 1 to 11 days (average 3.2 days). While this period was 2.6 days for conservative approach; it was 5.4 days in those who underwent surgical approach. Two patients were discharged voluntarily after two days of hospitalization. Septal perforation was repaired in the patient whose epistaxis could not be controlled with conservative methods, and the hospitalization period was determined as 11 days.

Consultation was requested from different clinics due to the current general medical conditions and accompanying diseases of 51 patients. The most frequent consultations were requested from clinics of cardiology for 28, from neurology for 15 and hematology for 4 patients.

DISCUSSION

This study was conducted for a general evaluation of patients presenting with epistaxis. Studies have shown that epistaxis is more common in men (58%) than women (42%). In addition, studies have shown that 71.4% of the patients are 50 years and older and the male prevalence increases more in advanced ages. Pollice et al.⁽³⁾ presented similar rates. According to Huang et al.⁽⁹⁾ men presented with epistaxis 3 times more often than women. On the other hand, Shaw et al.⁽⁴⁾ argued that women (53%) experience epistaxis more frequently than men (47%). In our study, in accordance with the literature, epistaxis was observed with a rate of 57.2% in men and 42.8% in women.

Etiologic factors for epistaxis can be examined in three groups as environmental, local and systemic factors (10). Cases of epistaxis are increasing in autumn and winter. Because in these seasons, the humidity of the air is generally lower and upper respiratory tract infections are more common (2). In accordance with the literature, epistaxis cases are seen most frequently in these seasons in our clinic. However, Pollice et al.⁽³⁾ reported that the patients most frequently applied in April. The reason for this difference can be attributed to the effect of seasonal differences on weather conditions in each country and in different regions of each country. Different results can be obtained even in studies to be conducted in different regions of our country. Even in different parts of the same country, every season is experienced differently and weather conditions can change.

Trauma ranks high among etiologies. It usually occurs as a result of nasal cleansing and blunt blows (10,11). Among other causes, pathologies such as septum perforation, spin, deviation, inflammatory diseases such as sinusitis, allergic rhinitis, viral upper respiratory tract infection can be counted. Other rare causes include hemangioma and inverted papilloma.

Systemic causes include cardiovascular causes such as von Willebrand Factor (vWF) deficiency, thrombocytopenia, coagulation disorders such as hereditary hemorrhagic telangiectasia, hormonal causes, hypertension, heart failure, and mitral valve insufficiency (12,13). According to our study, cardiovascular etiologies were most frequently seen in patients at a rate of 21.5%.

In these patients, blood transfusion may be required due to severe bleeding or mild bleeding persisting for months. According to Schaitkin's study, 41% of the patients required blood transfusion (14). In our study, two patients needed blood transfusion.

The treatment protocol differs according to the underlying cause. Treatments are generally conservative, and accordingly cauterization, anterior and/or posterior packing and medical treatment

approaches can be used. Another approach is surgical treatment. Embolization, ligation, septoplasty and tumor surgery can be performed (2). Conservative approach is used more frequently as a treatment modality (1,2). Complication and mortality rates are low in these patients (8,9). In our study, conservative treatment was applied to 84.3% of the patients who came with active bleeding. In our study, nasal packing was applied to 88.2% of our patients. Septoplasty was the most frequently performed surgical treatment (6%).

Chemical cauterization is not effective in active bleeding, in anticoagulant users, in patients with thrombocytopenia, thrombasthenia and coagulation factor disorders. On the other hand, local cauterization is the most effective treatment option in areas that are easily accessible and where there is not much bleeding (2). In this study, since 50% of our patients aged between 50-80 years, and anticoagulants are used more frequently in this age group, cauterization could be applied to only 6% of our patients.

Many different results have been shown in studies conducted with patients hospitalized for epistaxis. Hospital stays for patients who underwent conservative methods differed among authors (Vaamonde et al. 9.2, Pollice et al. 4 days, and Huang et al 8.1 days) and an average of 11.8 days in patients who underwent surgery (2,3,9). In our study, the average hospitalization period was 3.2 days. Hospital stays were 2.6, and 5.4 days for those who underwent conservative and surgical treatments, respectively. Mortality rates of epistaxis patients were reported as 7.8% by Huang et al.⁽⁹⁾, while mortality was not encountered in our study similar to that reported by Pollice et al.⁽³⁾

CONCLUSION

It should be kept in mind that epistaxis is a symptom, not a diagnosis. Considering the complications that may develop and the possibility of mortality, patients with advanced age, with coagulation disorders and those using anticoagulant-antiaggregant drugs should be hospitalized for close observation purposes.

Ethical approval: Required permissions for the study were obtained from the local ethics committee (2019/243)

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