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Severe Epistaxis Presenting with Deep Anemia: A Case Report

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ABSTRACT

Epistaxis is the most common nasal emergency. In this case report, we aimed to present a patient who presented to the emergency department with epistaxis-related deep anemia in the light of the literature. A 73-year-old male patient applied to the emergency service with nasal bleeding since yesterday despite the nasal tampon. He had epistaxis for three days. The pulse of the patient was 97 beats/min, rhythmic and blood pressure was 90/61 mmHg. The nasal septum was cauterized. Tampon was placed in the right nasal passage again. Bleeding started again after two hours. The laboratory results were hemoglobin 6.7 g/dl and hematocrit 21.5%. On the second day of the hospitalization, the patient was operated due to nasal bleeding. The sphenopalatine artery was endoscopically ligated. The patient was discharged without any complications. Although epistaxis is often self-limited, it can be life-threatening in rare cases. Physicians should keep in mind that surgical treatment may be necessary in the treatment of epistaxis.

Keywords: Case reports, epistaxis, nasal bleeding



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INTRODUCTION

Epistaxis is the most common nasal emergency, which shows bimodal distribution. Epistaxis is more common under the age of ten and over fifty years.^[1] Epistaxis is often self-limiting. In most cases where epistaxis is not self-limiting, patients refer to primary health care. These cases are often controlled by first aid measures. Rare cases present with life-threatening bleeding.^[2]

In this case report, we aimed to present a patient who presented to the emergency department with epistaxis-related deep anemia in the light of the literature.

CASE REPORT

A 73-year-old male patient applied to the emergency service with nasal bleeding since yesterday despite the nasal tampon. He had epistaxis for three days. He had applied to the emergency department because of epistaxis twice in the last three days. In the anamnesis of the patient, it was seen that there was diabetes mellitus, hypertension. There was no history of trauma or anticoagulant use.

On her physical examination, the vital signs of the patient were recorded as follows: pulse: 97 beats/min, rhythmic, blood pressure: 90/61 mmHg, respiratory rate: 17 breaths/min, room air oxygen saturation: 98% and body temperature: 36.1°C. The physical examination revealed that the general status was moderate, and his nose was bleeding. The other system examinations were within normal limits. Electrocardiography was normal except for sinus tachycardia. Endoscopic examination revealed bleeding in the nasal septum and cauterized with bipo-

lar cautery. Merocele tampon was placed in the right nasal passage again. Bleeding started again after two hours. The laboratory results were hemoglobin 6.7g/dL, hematocrit 21.5% and INR 9.11. It was learned from a computer-based health information system that the patient's hemoglobin value was 9 g/dL three months ago.

Two units of erythrocyte suspension and one unit of fresh frozen plasma were administered intravenously. At the sixth-hour control examinations, her vital signs were stable. The patient was hospitalized to the otolaryngology clinic for follow up. On the second day of hospitalization, the patient was operated due to nasal bleeding. The sphenopalatine artery was endoscopically ligated. Two days after the operation, the patient was discharged without any complications. Patient consent was obtained for this study.

DISCUSSION

Epistaxis is a health problem in all age groups. Most cases are anterior bleeding, which facilitates treatment and increases the success of conservative, non-surgical approaches. In the treatment, the cause should be determined firstly, but many patients are presented idiopathically.^[2] Local and systemic factors, such as nasal surgery, trauma, foreign body, malignancy, hypertension, hemorrhagic diseases, hereditary hemorrhagic telangiectasias, antiplatelet-anticoagulant drug use are presented in the etiology, but there is no cause in some of the patients.^[3]

The nasal cavity has been supplied from internal and external carotid arteries. The anterior and posterior ethmoid arteries branch of the ophthalmic artery supplies the superior septum and lateral nasal wall. The sphenopalatine, the posterior nasal, and the major palatine artery are several branches of the internal maxillary artery. Kiesselbachs Plexus and Woodruffs Plexus are formed by anastomoses between these arteries.^[4]

Epistaxis mostly arises from the Kiesselbachs Plexus, which is in the anterior septum.^[5] Local vasoconstrictor agents, cauterization (chemical or electro), nasal tampon, tranexamic acid (local or systemic), ankaferd and surgical intervention may be used in the treatment of epistaxis.^[6]

The nasal tampon is the first-line treatment that could easily be administered by non-specialists. However, it may cause negative effects, such as toxic shock syndrome, eustachian tube dysfunction, epiphora, vagal reaction. Better results have been reported compared to simple interventions, such as tranexamic acid, ankaferd and nasal tamponade. Chemical cauterization with silver nitrate is a good al-

ternative with a success rate of over 80%.^[7,8]

Endonasal endoscopic ligature of the sphenopalatine artery has been an effective surgical technique for treating severe posterior epistaxis.^[9] In our case, the patient was hemodynamic instability despite non-surgical methods, treated with sphenopalatine artery ligation.

In conclusion, although epistaxis is often self-limited, it can be life-threatening in rare cases. Physicians should keep in mind that surgical treatment may be necessary for the treatment of epistaxis.

Disclosures

Informed Consent: Written informed consent was obtained from the patient for the publication of the case report.

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Authorship contributions: Concept – S.Ö.; Design – S.Ö.; Supervision – H.Ş.A., A.A.; Materials – S.Ö., A.A.; Data collection &/ or processing – S.Ö., H.Ş.A.; Analysis and/or interpretation – S.Ö., H.Ş.A.; Literature search – S.Ö., A.A.; Writing – S.Ö.; Critical Review – S.Ö., H.Ş.A., A.A.

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