

Modern Methods of Treating Nosebleeds

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Abstract: Epistaxis is the most common type of external bleeding, accompanied by a runny nose, often associated with facial trauma, and occurs in both adults and children.

Most often, damage to blood vessels occurs in the area of the nasal septum. The development of bleeding from the structures at the back of the nose often occurs in patients with atherosclerosis, blood diseases, or during surgery on the nose for therapeutic or aesthetic purposes.

Key words: Nosebleeds: causes, first aid, treatment, diagnosis

Causes of nosebleeds:

The causes of this pathological condition:

injuries;

dryness of the mucous membrane;

rhinitis;

vascular pathology;

blood clotting disorder;

surgical intervention;

perforation of the nasal septum due to the use of cocaine;

liver diseases, AIDS;

neoplasms.

Frequent and severe nosebleeds that develop against the background of complete well-being can occur with high blood pressure (in this case, according to ICD-10, the diagnosis is "hypertensive crisis complicated by nosebleeds").

Most often, nosebleeds develop in men, because in women, estrogens (female sex hormones) strengthen the walls of blood vessels.

Symptoms of nosebleeds

A day before, the patient may have the following symptoms: nasal congestion, a feeling of pressure, tightness or pain in the nose.

Depending on the intensity of bleeding, patients may complain of:

nosebleeds;

dizziness;

palpitations, increased pulse;

general weakness, impaired consciousness;

pain in the nasal area.

Diagnosis of nosebleeds

Diagnosis is not difficult and includes an interview with the patient, general and local examination, laboratory and instrumental research methods (if necessary).

During the survey, they determine the factors that contributed to the development of bleeding (blowing the nose, sneezing, picking the nose), concomitant diseases and conditions (including pregnancy, cirrhosis, HIV, genetic diseases, tumor process), how long ago . bleeding started, what measures were taken for it, does it stop, how often do similar cases occur.

May indicate a pathology of the blood coagulation system:

increased bleeding from the gums, including when brushing the teeth;

blood in urine, feces;

tendency to form bruises all over the body;

taking certain medications (NSAIDs, antiplatelet agents, anticoagulants).

Bleeding from one or two nostrils of varying intensity was noted during the examination. There may be signs of increased bleeding in the body - bruises, telangiectasias.

The doctor examines the anterior parts of the nose using a lamp, a head mirror and a nasal dilator. If the bleeding is not strong, no further examination of the nasal cavity is performed. If it is a lot, the following is done for a more detailed examination and to determine the source of bleeding:

video rhinoscopy;

posterior rhinoscopy;

endoscopic endonasal examination of the nasal cavity, nasopharynx, paranasal sinuses.

To assess the severity of the patient's condition, blood pressure is measured, heart rate and respiratory rate are calculated. In severe cases, tachycardia, hypotension and hemorrhagic shock may develop.

Disadvantages:

signs of bleeding on the skin;

use of anticoagulants;

development of hemorrhagic shock;

ineffectiveness of treatment with a tampon impregnated with vasoconstrictors, including when pressing on a vein;

frequent runny nose for unknown reasons.

The doctor may order the following laboratory tests:

general blood test with determination of hemoglobin, red blood cells, leukocyte formula, platelets, ESR;

general urinalysis;

biochemical blood test with determination of total protein, bilirubin, ALT, AST, creatinine, glucose;

study of coagulation hemostasis with determination of prothrombin time, partial thromboplastin time, activated partial thromboplastin time;

blood group, Rh factor, erythrocyte phenotype.

If an oncological process or a foreign body is suspected, contrast-enhanced computed tomography of the skull and angiography of the carotid artery may be ordered.

Nosebleed first aid, do's and don'ts

Most often, damage to blood vessels occurs in the anterior parts of the nose, which is accompanied by light bleeding that easily stops on its own.

If you have a nosebleed, do the following:

calm down;

if the bleeding is severe, call an ambulance;

hold the nose with your fingers for 5-10 minutes;

apply cold to the bridge of the nose;

if ineffective, moisten the tampon with one of the following: oxymetazoline, ephedrine, xylometazoline, hydrogen peroxide and insert it into the nose for another 10 minutes.

It is not recommended to throw your head up or lie down, which allows blood to enter the stomach and irritate its mucous membrane. This can cause bloody vomiting. You should not drink coffee, because it provokes hypertension and recurrence of the disease.

Treatment of nosebleeds

In case of prolonged and severe bleeding, the patient should be treated in the ENT department.

Conservative and surgical methods are used to stop bleeding. The doctor can cauterize the veins in the front of the nose with silver nitrate or electrocautery and insert a nasal foam pad lubricated with antibacterial ointment.

Pharmacotherapy to stop nosebleeds includes:

increase the formation of blood clots and prevent their disintegration (aminocaproic acid, tranexamic acid, etamsylate);

those with anti-inflammatory and analgesic effects (glucocorticoids, non-steroidal anti-inflammatory drugs, analgesics, including opioids);

prevention of the development of infectious complications (penicillin antibiotics, cephalosporins, macrolides, fluoroquinolones);

reduce swelling of soft tissues, restore nasal breathing (adrenergic agonists, saline solutions for topical use and antihistamines);

strengthening the regeneration of the mucous membrane (dexpanthenol).

Surgical treatment is carried out in the following ways:

anterior and posterior tamponade of the nasal cavity, insertion of special nasal balloons;

connecting the internal and external carotid arteries using a clip;

endovascular embolization of vessels under X-ray navigation control.

Anterior tamponade involves zigzag insertion of a strip of gauze moistened with petroleum jelly (length can reach 175 cm) into the anterior parts of the nose. Posterior tamponade involves the insertion of two long threaded solid tampons from the nasopharynx. A catheter is inserted into the oral cavity through the nasal passage from the front, a thread of a tampon is attached to it. During the withdrawal of the catheter from the nose, the nasal choanae are blocked with a tampon. Next, it is performed on the front tampon, the free ends of the tampon threads are fixed in the pharynx and nostrils. Tampons are removed on the 4th-5th day. To prevent infectious complications and hypoxia, the patient is prescribed oxygen therapy and systemic antibiotic therapy.

These treatment methods require anesthesiological and resuscitation support (local, topical and general anesthesia can be performed). In cases of severe blood loss, transfusion of colloid and crystalloid preparations and transfusion of blood components are performed.

If blood enters the intestine in patients with severe liver disease (to prevent blood breakdown and ammonia release), a cleansing enema is administered, laxatives, sorbents and non-absorbable antibiotics (neomycin) are prescribed.

During treatment, the patient is not recommended to use clopidogrel, acetylsalicylic acid, heparin or warfarin.

Prevention of nosebleeds

After stopping nosebleeds, it is recommended to prevent recurrence:

taking capillary stabilizing drugs (vitamin C);

food enrichment with vegetable fiber (fruits, herbs, vegetables);

exercise regularly;

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