

Epistaxis: Halting the Hemorrhage



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Many FPs have patients presenting to their offices with a history of frequent epistaxis. On average, two patients per week present to my office in regards to this problem and even more so during the winter months. Statistics show that 5% to 14% of Americans have nosebleeds at least once a year.

Potentially, anyone can be affected by epistaxis, especially if they are exposed to cold, dry air. In most cases (and unless patients have a bleeding disorder) hereditary factors do not seem to influence the likelihood of epistaxis.

This article will focus on patients who need further investigation and/or should be referred to a specialist. Not all FPs have the luxury to deal with the management of the patient with an acute active bleed, so this will not be discussed here as these individuals should be sent to the ER where their problem can better be dealt with.*



What is the history?

Typically, an appointment will be booked when epistaxis occurs weekly or is very severe. At the time of the consult, most patients are not actively bleeding and are hemodynamically stable.

Pediatric patients tend to be healthy and bleed for short periods, on average three to four times

per week. On the other hand, adults may be on treatment for hypertension, using acetylsalicylic acid or coumadin and bleeds are described as being more severe. It has been found that only 10% of children will have underlying associated problems vs. 90% of adults.

Bleeding is more frequent during winter months and is generally self-treated with local pressure.¹ When asked to demonstrate, a large percentage of patients with epistaxis will pinch the nasal bones, which surprisingly, is often successful.²

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Pertinent questions

After obtaining a general history, pertinent questions should include:

- When did the problem start?
- Was the onset associated with nasal trauma/surgery?

- When was the last bleed?
- Which side bleeds?
- How much blood is lost per bleed?
- What is done to stop the bleeding?
(Ask patients to demonstrate)
- Has the patient ever gone to the ER for control?
- What treatment has been used to date?
- Is there a history of bleeding disorders?
- Are patients taking NSAIDs, platelet inhibitors or nasal steroids?
- Is there excessive alcohol use?
- Has there been a loss of smell since the bleeds began?
- Do patients have symptoms of nasal obstruction?
- Is there any systemic disease associated with vasculitis?
- Do patients have allergies/hay fever?

Once all the necessary information is gathered, there are certain factors that should raise a red flag (Table 1). These factors may point to occult pathology that require more attention.

Table 2 lists findings worth further investigation and referral to a specialist would be the prudent thing to do if present in your patient.

Q & A *What do you look for on physical examination?*

On examination, one will often find dry, bloody crusts in the anterior nose. These will need removal in order to do a proper nasal exam. Large dilated blood vessels on the anterior septum will be a common finding. The targeted area to look at will be directly opposite and in front of the anterior aspect of the inferior turbinate, known as Little's area, or the

Table 1

Red flags for potential occult pathology

- If bleeding occurs once weekly or more, or is described as severe, then obtain a hemoglobin level. If low, this indicates severe bleeds and you should refer to a specialist
- For young or teenage boys with severe nosebleeds, consider a juvenile nasal angiofibroma
- Unilateral bleeds only
- Associated nasal obstruction
- Hyposmia/anosmia
- Other bleeding disorders/family history of bleeding disorders
- Persistent foul nasal discharge, specifically unilateral, may mean a foreign body

• FAQ •

Who needs coagulation studies?

Patients with a low hemoglobin, a history of other bleeding problems and those not responding to treatment.

The first-line of treatment is to prescribe an antibiotic containing ointment to be used twice a day for three to six weeks. Fifty per cent of patients will need no further treatment.

Table 2

Findings to consider a referral

- A nasal mass: do not biopsy
- Red flag patients (see Table 1)
- Not responding to treatment
- Suspicion of vasculitis
- Deviated septum precluding nasal exam
- Septal perforations

Kiesselbach plexus, where five arteries contribute branches to it.

In the situation where this is not the case, the patient is best referred for nasal endoscopy to rule out other causes of bleeding.

Q *What treatment is available?*

First-line treatment

The first-line of treatment is to prescribe an antibiotic containing ointment to be used twice a day for three-to-six weeks.³ This moisturizes the dry nose and helps with any local infection where the blood crusts provide a rich culture medium for bacteria. Fifty per cent of patients will need no further treatment.

Second-line treatment

Cauterization with silver nitrate is the second-line of treatment for those who do not respond to first-line treatment.⁴

For cauterization in the office, I recommend having the following available because treatment may start a significant bleed:

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Do I continue with nasal steroid spray if the patient has epistaxis?

Discontinue use for one week and follow the above treatment. Make sure your patient is using a daily moisturizer when nasal steroid treatment is reintroduced.

Demonstrate proper administration of the spray, emphasizing spraying away from the septum.

- Self-expanding sponges
 - These can be cut to different sizes
 - They can be inserted rapidly
 - They will control most acute bleeds
- 4% lidocaine viscous
- 1:1000 adrenaline
- Xylometazoline
- Cotton balls
- Headlight
- Silver nitrate sticks
- A nasal speculum for adults
- A bayonet and forceps

Try to avoid using a nasal speculum in children. With upward nasal tip pressure; the anterior aspect of the septum should easily be visible.

Soak the cotton ball in a 50:50 mixture of the lidocaine viscous and xylometazoline and "paint" the septum while pushing the cotton ball posterior to the blood vessels you are about to cauterize and leave the cotton ball there to prevent silver nitrate streaking down the septum into the posterior nose. Apply the silver nitrate directly over the offending vessels and apply pressure with the tip for 30 seconds. A white area on the mucosa will indicate contact with

Take-home message

- Remember the red flags
- Keep self-expanding sponges in the office
- Do not cauterize the septum if prominent blood vessels are not identified
- Wear protection as your patient may/will splatter blood on you
- Use moisturizers with nasal steroid sprays to prevent bleeds

silver nitrate. Spot weld the entire length of the vessel and make sure to follow it to the nasal floor. If bleeding starts, have cotton swabs soaked in 1:1000 adrenaline handy and apply this over the bleeder because the silver nitrate will not be effective (*i.e.*, washes away).

Cauterization with silver nitrate is the second-line of treatment for those who do not respond to first-line treatment.

If the bleeding is persistent, remove the cotton ball and insert a self-expanding sponge. Further treatment is best directed to the ER.


After cauterizing, apply an antibiotic-containing ointment and instruct the patient to continue doing this for the next three weeks.

Only one side of the septum should be done at a time, with at least a two-week interval prior to treating the other side.

Q & A *What are some helpful hints?*

To save yourself calls from patients who will continue to bleed, point out Little's area and demonstrate how pinching below the nasal bones will translate to local pressure where needed.

With active bleeds, placing a xylometazoline-soaked cotton ball in the nostril will add helpful vasoconstriction at the same time. Pressure should be applied for at least normal bleeding times, up to nine minutes by the clock.

Avoid cold, dry air by using a humidifier where forced air heats the environment. Ice packs on the nasal bridge will add to vasoconstriction. 

* For an in-depth look at how to manage the acute bleeder, please see: Tan LK, Calhoun KH: Epistaxis. *Med Clin North Am* 1999; 83(1):43-56.

References

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