Case Report

Nasal Polyps

Urgent message: Differential diagnosis and careful attention to signs, symptoms and history are particularly important in management of patients with nasal inflammation.

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Overview

Nasal congestion and sinus symptoms are common urgent care complaints. Recurrent sinusitis, either from allergies or upper respiratory infections is frustrating to patients. Proper evaluation and treatment of underlying predisposing factors will help alleviate symptoms and address the disease process associated with polyps such as those seen in **Figure 1**.

Case Presentation

A 5-year-old female was brought in by her mother with complaints of left-sided nasal congestion and dried blood in her nose for 1 week. The child reported that her nose was injured by her friend's elbow while they were playing at school. At the time, she was noted to have bleeding from her nose for 10 minutes, which was controlled with nasal pressure. A few days later, the parents noticed dried blood in the child's left nostril and brought her to the urgent care center for evaluation. On further questioning, the child reported issues with recurrent sinusitis and seasonal allergies. She has been treated multiple times by her primary care physician for sinusitis. Her mother also reported that for the last 2 years, the child has been snoring loudly at night and her voice has been nasal.

Observations and Findings

Physical examination of the patient reveals the following:

Allergies: NKDA
PMH: as noted above

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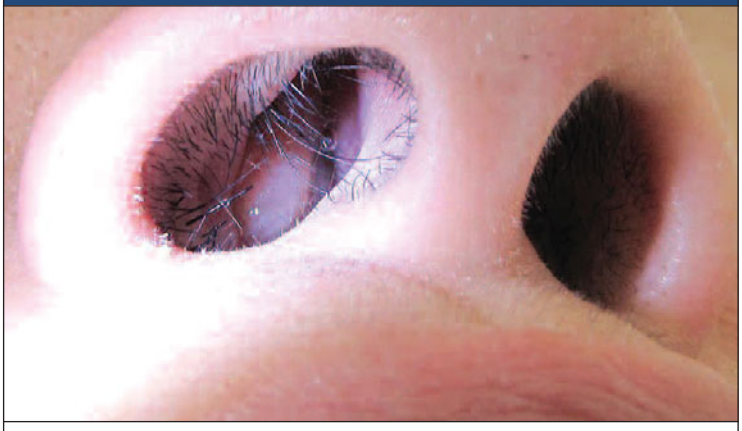
Medications: none
Family History: Maternal asthma and allergic rhinitis
Pulse: 80
Temp: 98.7°F
O_2 Sat: 100%
BP: 80/50.

The child was well developed, alert and oriented x3 and in no acute distress.

HEENT: + findings: bloody mucus discharge from the left nostril, completely obstructing the nasal cavity with mild tenderness over the bridge of the nose. The child was told to blow her nose and re-examination of the left nostril revealed a painless, soft, lobulated mass with edematous mucosa in the nasal cavity.

Figure 1. Nasal Polyp



Source: Wikimedia Commons. Uploaded by author MathieuMD

Oral examination revealed bilateral 2+ tonsillar enlargement without any erythema and exudates. No cervical adenopathy was present and the child's external ear canals were normal and her tympanic membranes were clear bilaterally.

The patient's lungs were clear to auscultation bilaterally with no rhonchi or wheezing. Her heart rate and rhythm were normal with normal s1 and s2 and no murmurs.

Diagnosis

Nasal Polyps

Discussion

Epidemiology

The prevalence of nasal polyps in the general population is 0.5% to 4.3% and in children it is 0.1%. Prevalence is increased in patients with selected conditions, including 36% to 96% in individuals with aspirin intolerance, 36% to 60% in association with intolerance to nonsteriodal anti-inflammatory drugs, 7% to 15% with asthma, 40% with cystic fibrosis, and 0.5% to 4.5% in patients with allergic rhinitis.

Likely risk factors for nasal polyps are aspirin sensitivity, asthma, and allergic rhinitis. The condition commonly involves paranasal sinuses and it may cause secondary bacterial infection and chronic nasal obstruction leading to orthodontic abnormalities, including high-arched palate and malocclusion.

Clinical presentation

Patients with nasal polyps present with nasal obstruction, rhinorrhea, sneezing, postnasal drip, decreased sense of smell, and rarely epistaxis (more common with cancer or invasive benign lesion). Physical signs include bilateral edematous swelling of nasal mucosa that usually originates in the ethmoid sinuses. The area around the middle turbinate may have an appearance similar to gray grapes. Because polyps are generally insensitive, probing with a blunt instrument may distinguish them from very sensitive swelling of the turbinate. Anterior rhinoscopy can be used to visualize large polyps and nasal endoscopy is required to visualize small polyps.

Differential diagnosis

Polyps that are unilateral may signal malignancy based on presence of neck mass, symptoms of headaches, diplopia, conductive hearing loss, tinnitus and referral to an otolaryngologist is appropriate for these patients. Suspect cocaine abuse in patients with nasal septal perforation, nasal irritation, crusting, recurrent nose bleed, and nasal stuffiness. Other signs and symptoms of cocaine abuse may be present in these individuals and they should be and referred to a behavioral health specialist for further evaluation.

Nasal foreign bodies are particularly in children aged 18 months to 5 years and in mentally ill or handicapped adults. The hallmarks of the presentation are unilateral, purulent, foul-smelling discharge, fever, and pain. Urgent referral to an ear, nose and throat (ENT) specialist is required for caustic foreign bodies such as button batteries. If threat to the airway is a consideration, take immediate action to relieve it before continuing with further assessment. If the diagnosis is uncertain, imaging is required. Nasal examination can be uncomfortable; anesthetizing the mucosa with a topical agent makes the procedure less traumatic and using a vasoconstrictor shrinks the mucosa, allowing easier examination and possibly easing removal.

Symptoms associated with polyps caused by allergic rhinitis include nasal itching, sneezing, clear nasal secretions, and transverse nasal crease. In severe cases, dark circles around the eyes can be appreciated. In patients with this presentation, look for associated asthma, eczema, chronic cough, and postnasal drip. Allergen avoidance, topical nasal steroids and antihistamines are the mainstays of treatment.

Nasal congestion, purulent drainage, and headache with facial pain or pressure is suggestive of infectious sinusitis. Acute sinusitis may last for 7 to 10 days whereas

chronic sinusitis can span more than 12 weeks. Predisposing factors include allergic rhinitis, upper respiratory tract infections, and certain environmental factors including smoking and second-hand smoke. The goals of treatment are relief of symptoms with supportive therapies and eradication of bacterial infections with antibiotic medications when necessary. Patients with recurrent sinusitis should be referred to an ENT surgeon.

Treatment

Most patients with nasal polyps should have a trial of medical treatment prior to surgery unless the diagnosis is unclear. Intranasal steroids are indicated for nasal polyps that cause mild to moderate symptoms. Mometasone nasal spray 200 mcg once or twice daily is appropriate to reduce symptoms and it may decrease the size of nasal polyps in patients who have chronic rhinosinusitis. Fluticasone nasal drops may reduce the need for functional endoscopic sinus surgery.

After 3 months of medical therapy, patients with nasal polyps should be re-evaluated. If their symptoms have improved, treatment should continue with topical steroids and follow up every 6 months. For patients whose polyps do not improve, a computed tomography (CT) scan is necessary. Those with severe symptoms may require a short course of oral steroids in combination with intranasal steroids, with follow up in 1 month. If the combination therapy produces improvement, the intranasal steroids should be continued. If not, a CT scan should be obtained and the patient refer to an ENT for endoscopic sinus surgery.

Conclusion

Seeking the underlying cause of nasal polyps will help establish the diagnosis in a timely manner and also facilitate proper management. Our patient was discharged home on intranasal steroids and with referral to an ENT surgeon. The child's mother was happy with our care because she never knew that her child had a nasal polyp that was causing recurrent sinus infection and snoring. ■

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