

PBL in ORL

Problem Based Learning in Otorhinolaryngology



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CHAPTER 35

Foul Nose Discharge

Dr. Sami Al Harethy

A 3-year-old boy is brought to the emergency room by his parents with snoring, mouth breathing and foul smelling, occasionally bloody thick nasal discharge for 6 months. The problem worsens during URTIs. He has been taken several times to a clinic near his home and is always managed as having a common cold. His examination reveals a mouth-breathing child with erythematous skin over the right nostril and a thick, mucopurulent, foul-smelling, anterior nasal discharge. Physical examination of the ear, throat and neck is normal.

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Q1. What are the possible causes of this child's problem?

- Nasal foreign body
- Rhinosinusitis
- Unilateral choanal atresia

Most children deny putting anything in their nose. However, the parents may suspect that a foreign body is present, which should be taken seriously even if the patient is asymptomatic.

Q2. What is the most likely diagnosis?

The diagnosis is a nasal foreign body until proven otherwise. This diagnosis should be the first possibility on the differential diagnosis that should be ruled out in a child or mentally retarded patient who has unilateral foul-smelling nasal discharge.

Q4. What is the main diagnostic tool?

Physical examination is the main diagnostic tool with adequate inspection of the nasal cavity, using a headlamp and/or an endoscope. Sedation or even general anesthesia is often required in the pediatric population.

Q3. How useful is the history in these cases?

Q5. Where is the most common location for nasal foreign bodies?

Nasal foreign bodies tend to be located on the floor of the nasal passage, just below the inferior turbinate or anterior to the middle turbinate.

Q6. When are imaging studies indicated?

Imaging studies are usually indicated when another diagnosis (tumor, sinusitis) is considered or if there is a concern for an aspirated or ingested foreign body. Additionally, an X-ray might be useful if the FB is radio-opaque.

Q7. What are the symptoms of nasal foreign bodies?

Some nasal FBs (especially if small and inorganic) may be asymptomatic and discovered only during a routine examination for unrelated illness. However, the most common symptoms are unilateral nasal obstruction and discharge. If the FB is composed of organic material, then the discharge is usually foul smelling and is sometimes blood stained.

Q8. How can nasal foreign bodies be classified?

- Inorganic (e.g., beads, small parts from toys): often asymptomatic and may be discovered accidentally
- Organic (e.g., food, rubber, wood, sponge): tend to be more irritating to the nasal mucosa and thus may produce early symptoms.

Q9. What are the complications of nasal foreign bodies?

- Bleeding (most common)
- Sinusitis
- Nasal septal perforation
- Aspiration

Q10. What are rhinoliths?

Rhinoliths are long standing firmly impacted foreign bodies in the nose that are coated with calcium, magnesium, phosphate or carbonate (Figure 35.1). They are radio-opaque and typically found on the floor of the nose. They can remain undetected for years.



Figure 35.1: Endoscopic picture of rhinolith in the nasal cavity

Q11. How the management of metallic button batteries is different from other FBs?

This finding is considered as a very urgent situation and requires early intervention because it can cause severe damage within a short time. The damage occurs because of the following:

- Low-voltage electrical currents
- Electrolysis-induced release of sodium hydroxide and chlorine gas
- Liquefactive necrosis if the alkaline contents leak out (which is worse than acid)

Q12. When are nasal foreign bodies considered an emergency?

- If the foreign body has been inhaled into the person's throat and the person is choking
- If the object falls back into the throat and is swallowed.
- If the foreign body is an object that contains chemicals, such as button batteries.
- If the foreign body is made of food material.

Q13. What should be done immediately after removing a nasal foreign body?

After careful removal of the foreign body (Figure 35.2), a "second look" must be performed because there can be additional foreign bodies. Also, it is important to make sure that no trauma has occurred to the nasal cavity.



Figure 35.2: Removal of a nasal foreign body requires delicate handling with proper instruments.