NASAL SEPTAL HAEMATOMA

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Background Information

Definitions of levels of care (in this guideline)

- Level 1: Community healthcare worker/non-doctor
- Level 2: Medical doctor
- Level 3: ENT Surgeon

A nasal septal haematoma occurs when blood accumulates between the cartilage and the overlying mucoperichondrium of the septum. The cartilaginous septum receives its blood supply from the overlying mucous membrane and these vessels pierce the mucoperichondrium to supply the cartilage. If shearing forces tear these submucosal blood vessels, a haematoma forms. This results in the separation of the mucoperichondrium from the cartilaginous septum. If it occurs bilaterally, it results in septal ischaemia with subsequent avascular necrosis and cartilage resorption. It is usually unilateral but may be bilateral. It commonly occurs secondary to blunt facial trauma but may also be secondary to nasal surgery or sinusitis. The patient will usually develop nasal obstruction within 24-72 hours.

Examination

Don a pair of clean gloves, an apron or gown, a surgical face mask and eye protection if available. A headlight is preferable as it allows one to use both hands to examine but a torch or lamp can be used as well. Equipment should include a nasal speculum if available.

General:

- Examine for a reddish or bluish nasal swelling on the anterior septum
- Examine for fluctuance, crepitus, septal deviation

Level 1:

- Examine the anterior nares and septum using a headlight or a torch
- Examine for fluctuance, crepitus, septal deviation

Level 2:

- Removal of clots if present followed by anterior rhinoscopy

Management

General:

- Use of 18-20 gauge needle for aspiration of small haematomas
- Larger haematomas are drained via incision and drainage
- Nasal packing is performed after drainage
- Antibiotics are prescribed to prevent infective complications

Level 1:

- In older children and adults, an 18-20 gauge needle for aspiration of small haematomas

Level 2:

- In older children and adults, larger haematomas are drained under local anaesthesia. In younger children, general anaesthesia is often necessary
- Using a 10 or 15 gauge scalpel, an incision should made parallel to the nasal floor and in the fluctuant part of the haematoma. In case of bilateral haematoma, the incision should be staggered to prevent septal perforation
- Saline irrigation using an 18-20 gauge cannula to clear the haematoma

- A drain is left in situ and secured with sutures or quilting sutures are placed
- Nasal packing may be performed bilaterally to aid prevention of reaccumulation of the haematoma
- Antibiotics are prescribed to prevent infective complications
- Nasal pack and drain are removed after 48 – 72 hours

Further reading

1. Bansal, M. (2018). *Diseases of ear, nose & throat: With head & neck surgery*.
2. Durand, M. L., & Deschler, D. G. (2018). *Infections of the Ears, Nose, Throat, and Sinuses*. Cham: Springer International Publishing.
3. In Patlas, M., In Katz, D. S., & In Scaglione, M. (2022). *Atlas of emergency imaging from head-to-toe*. Cham, Switzerland: Springer.