

# Nasal obstruction

Blocked nose

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# Causes

- Congenital
  - choanal atresia
  - repaired cleft palate
  - tumours

# Causes

- Acquired
  - trauma
  - (without discharge)
    - polyps
    - neoplasms
    - PNS masses

# Causes

- Acquired - mucosal inflammation
    - (with discharge)
      - viral
      - bacterial
      - chemical
      - allergy
      - foreign body
- (unilateral, foul-smelling)

# Causes

- Congenital - choanal atresia
  - (uni- or bilateral, soft-tissue or bony)
  - ~ presents at birth
  - ~ bilateral is problem as neonate is obligate nose breather
  - ~ airway must be provided as emergency

# Causes

- Congenital - repaired cleft palate
  - ~ before repair - “common” airway
  - ~ after repair maxillary crest may occlude nose
  - ~ provide oral airway
  - ~ surgical correction

# Causes

- Congenital - tumours

~ meningo-encephalocoele

!! biopsies in nose !!

~ nasal glioma

NB radiological imaging

# Causes

- Acquired - trauma  
(without discharge)



# Nasal trauma

- May be part of **more extensive injury** to face, skull, skull-base, neck, chest .....

**REMEMBER TO CONSIDER THE AIRWAY  
AND EXCLUDE  
CERVICAL SPINE INJURIES**

Remember that low velocity trauma usually results in isolated nasal injury, while high-velocity trauma often has accompanying facial fractures and **cervical spine injury** must be considered

## N.B.

- Document all injuries, symptoms and signs
- Supplement notes with drawings, diagrams and photographs

These injuries often require reports for legal purposes and good, clear documentation is vital

# Causes

- Acquired
  - trauma
  - (without discharge) ~ deviated septum
  - unilateral

# Deviated septum

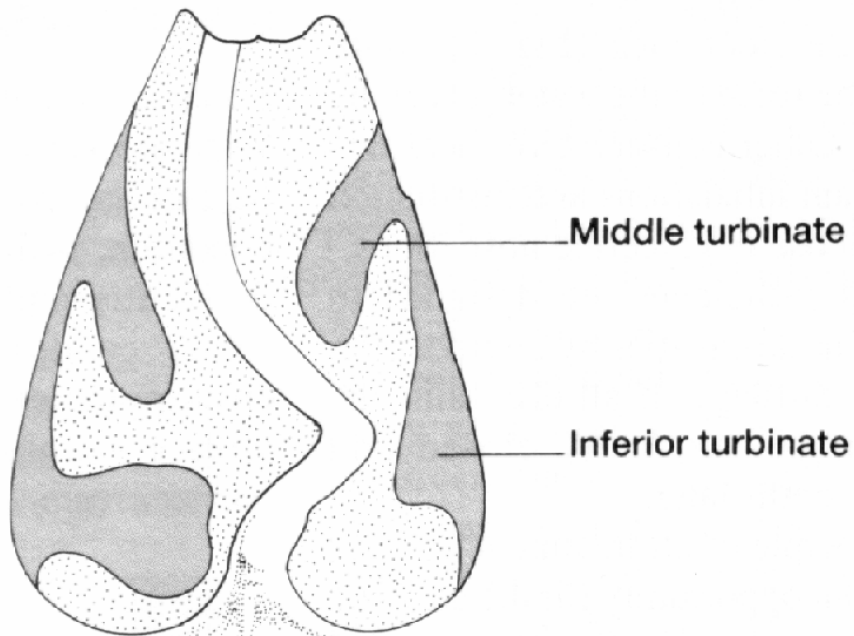
- Developmental as well as
- Traumatic

The convexity of the septum is usually to the obstructed side while the concave side often has enlarged (compensatory) inferior and middle turbinates.

# Septal deviations

- A truly straight septum is rare - deviations, deflections and spurs occur and, if severe, can cause obstruction.
- Perceptions of “abnormality” are subjective as some patients with minimal loss of airflow complain bitterly while complete obstruction is often an incidental finding in others.

# Septal deviation



# Symptoms

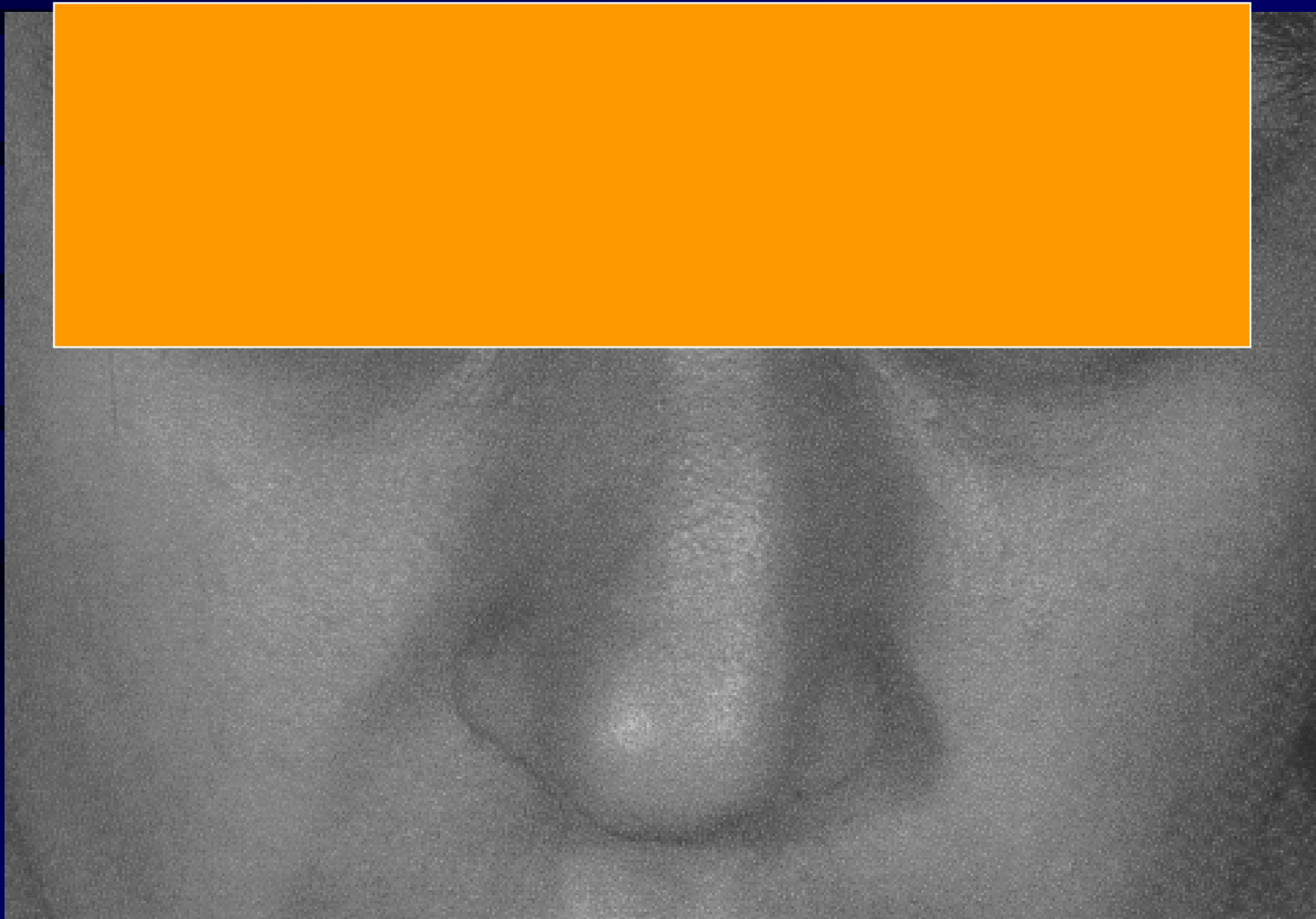
- Usually unilateral
- Obstruction
  - convex side - septum itself
  - concave side - turbinate
- Facial pain / sinusitis
  - enlarged turbinate
- Chronic otitis media
  - E.Tube dysfunction



# Clinical appearance

- External appearance of the nose gives idea of symmetry.
- Inspection (anterior & posterior rhinoscopy)
  - deflection(s)
  - caudal dislocation
  - spur(s)
  - compensatory turbinate enlargement

# External deformity



# Treatment

- Depends on degree of symptoms / discomfort
- If surgery is indicated, choice is between septoplasty and submucosal resection
- Aim is to straighten or remove the deviated section and reposition it in the midline, while retaining adequate support of the nasal dorsum
- Turbinates may be trimmed or realigned

# Causes

- Acquired - trauma

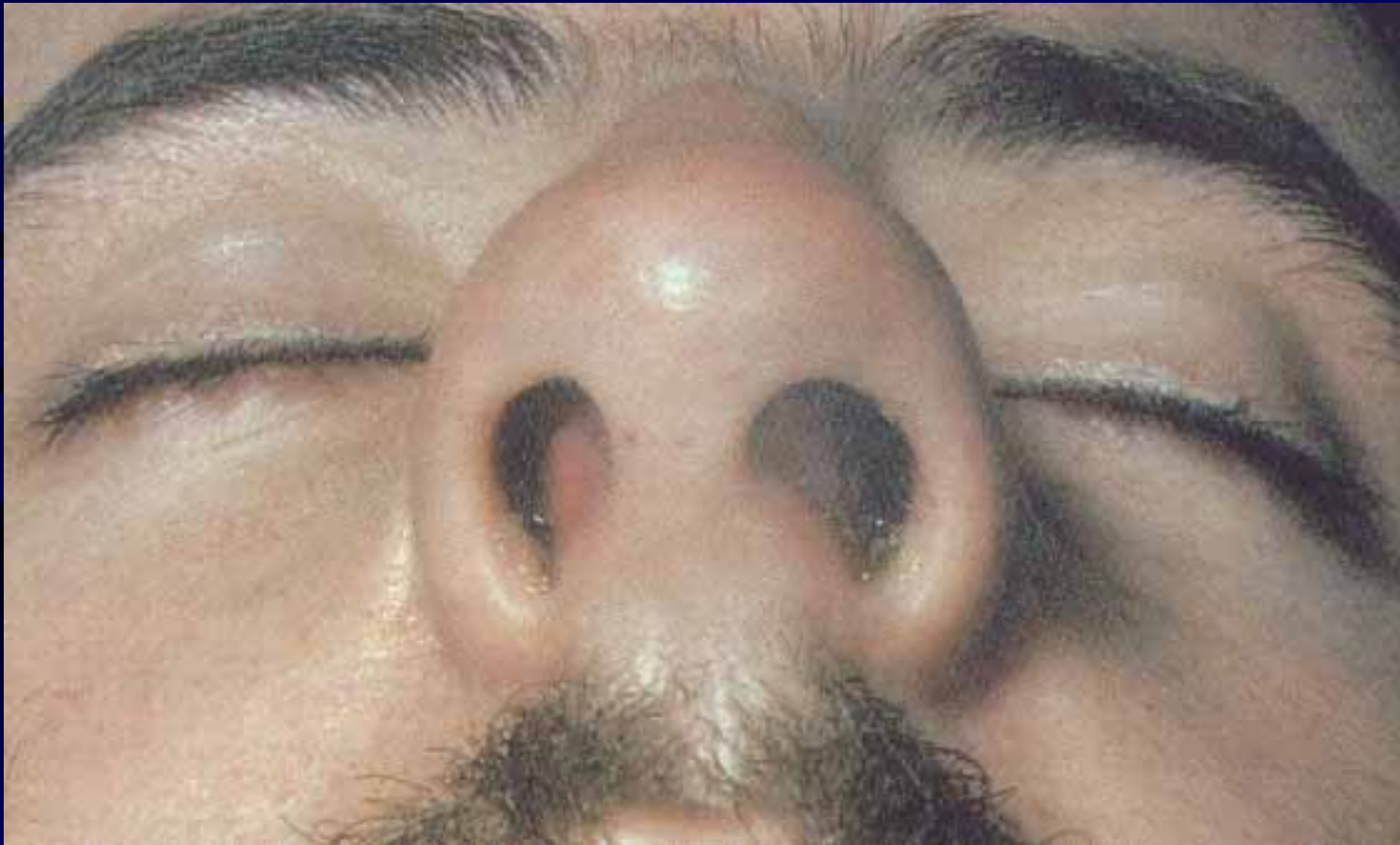
(without discharge)

~ septal haematoma

- bilateral

Surgical correction – haematoma as emergency

# Septal haematoma



# Management

- Septal haematoma

(collection of blood beneath mucoperichondrium causing bilateral complete obstruction)

- aspirate if small
- usually incise and drain with a “quilt” suture to prevent re-collection
- appropriate antibiotic cover

# Management

- If septal haematoma is missed or not treated adequately, septal abscess may follow and result in cartilage necrosis and “saddle” deformity

# Saddle deformity





# Causes

- Acquired

(without discharge)

- polyps

~ “grapes”

~ non-tender

~ clinical diagnosis

~ **NOT inferior turbinate**

Surgical removal + steroids (topical, systemic short term)

# Causes

- Acquired - neoplasms
  - (without discharge)
  - inverted papilloma
  - juvenile angiofibroma
  - malignancies

Surgical excision

# Causes

- **Acquired** - **Post Nasal Space masses**

(without discharge)

~ adenoids (commonest in children)

~ carcinoma / lymphoma

~ angiofibroma

Surgical removal

# Causes

- Acquired - mucosal inflammation
  - (with discharge)
    - viral
      - ~ clear rhinorrhoea
      - ~ chills, fever
    - bacterial
      - ~ purulent rhinorrhoea

Symptomatic + antibiotics if indicated

# Symptomatic treatment

- Decongestants - systemic - pseudo-ephedrine
  - antihistamine
  - topical
- Antipyretics
- Antibiotics - 2° bacterial infection
  - ? always in children from lower socio-economic groups
- Steam inhalations

# Causes

- Acquired - mucosal inflammation
  - (with discharge)
  - chemical
    - ~ nose drops
    - (rhinitis medicamentosa)
    - inflamed mucosa
    - clear rhinorrhoea

# Causes

- Acquired - mucosal inflammation
  - (with discharge)
  - allergy
    - ~ atopy history
    - ~ seasonal or perennial
    - ~ obstruction, rhinorrhoea, itch

Allergen avoidance ± antihistamines ± topical nasal steroids

# Causes

- Acquired - mucosal inflammation

(with discharge)

- foreign body

~ unilateral, foul-smelling  
rhinorrhoea in a child is a  
foreign body until disproven.

Visualise and remove  $\pm$  local anaesthetic



# Conclusion – common sense

- Identify cause
- Remove cause
- Treat any underlying / residual problems
- Reassurance