



The Nose

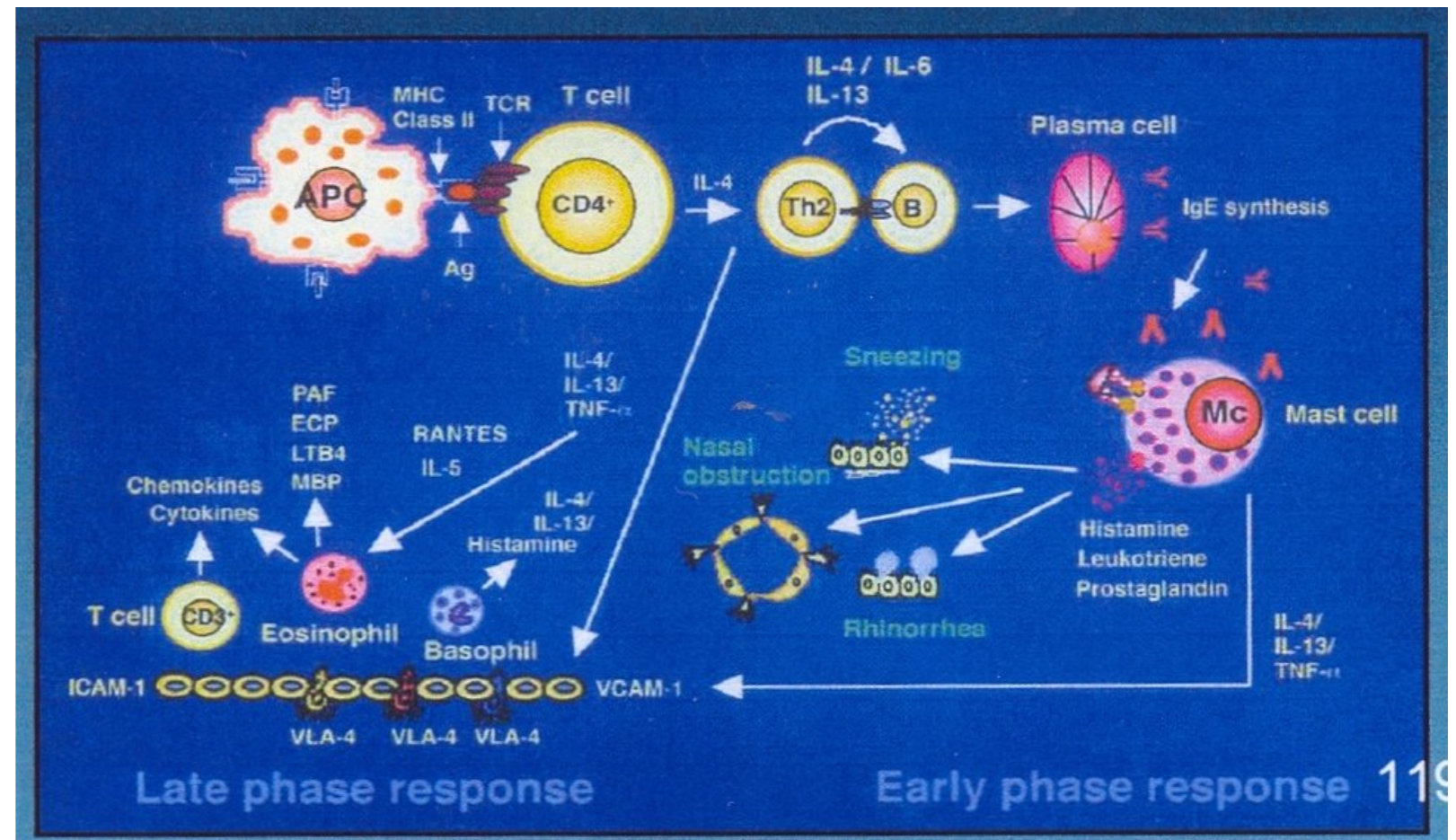
The Nose

- Rhinitis
 - Allergic
 - Vasomotor
- Epistaxis
- Fractured nasal bones
- Deflected septum
- Septal hematoma



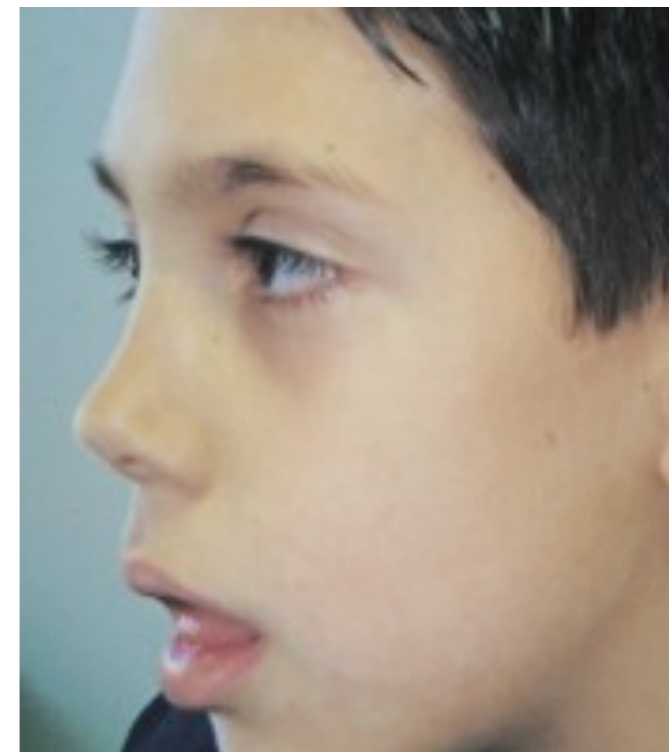
Rhinitis

- Allergic
 - Immunoglobulin E mediated
 - Post-exposure to immunogenic proteins
 - 10-30% of adults
 - Onset at 10-20 years
 - Atopic dermatitis, allergic conjunctivitis, asthma



Symptoms

- Clear rhinorrhea
- Post-nasal drip, sneezing, itching of nose and palate
- Nasal congestion
- Headache
 - Positive family history
 - Prior treatment
 - Recurrent otitis media/tubes



Differential Dx

- Upper respiratory infection
- Rhinitis medicamentosa
- Cocaine sniffing
- Mechanical obstruction
- Vasomotor rhinitis



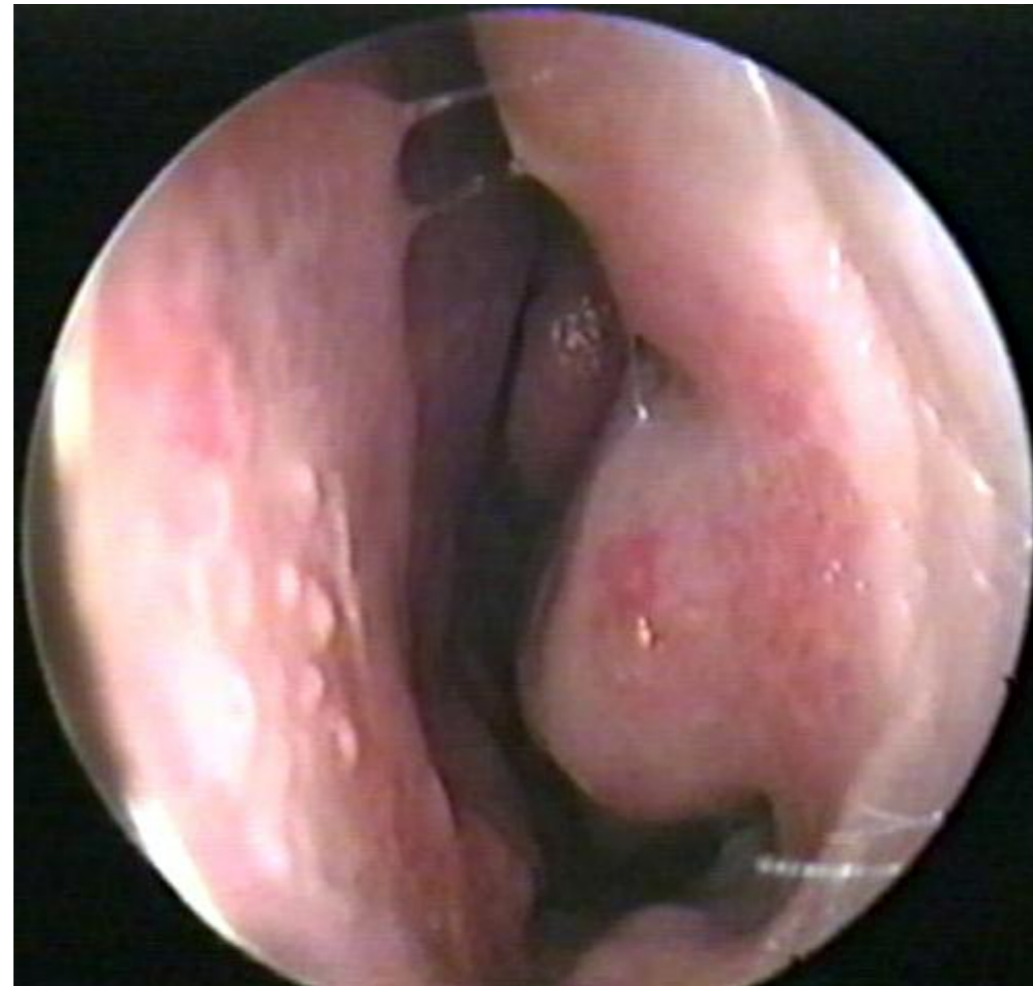
History

- Recurring 'season'
 - Grasses, trees, ragweed, animal dander etc.
- Travel circumstances
 - Screen for EIA
 - 40%



Exam

- Afebrile
- Clear rhinorrhea
- Edematous turbinals and mucosa



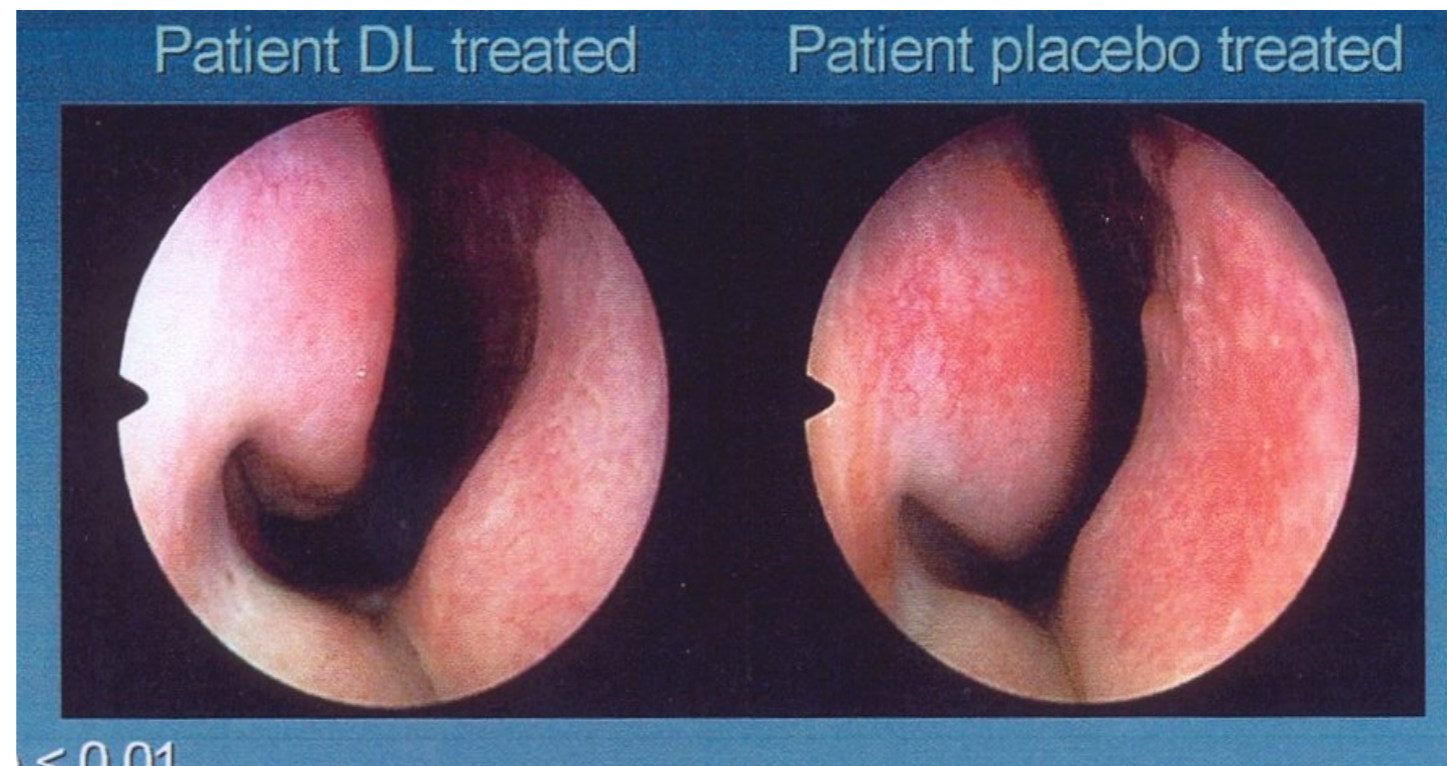
Treatment

- Antihistamines
- Topical decongestants
- Nasal steroids
- Occasional steroid burst



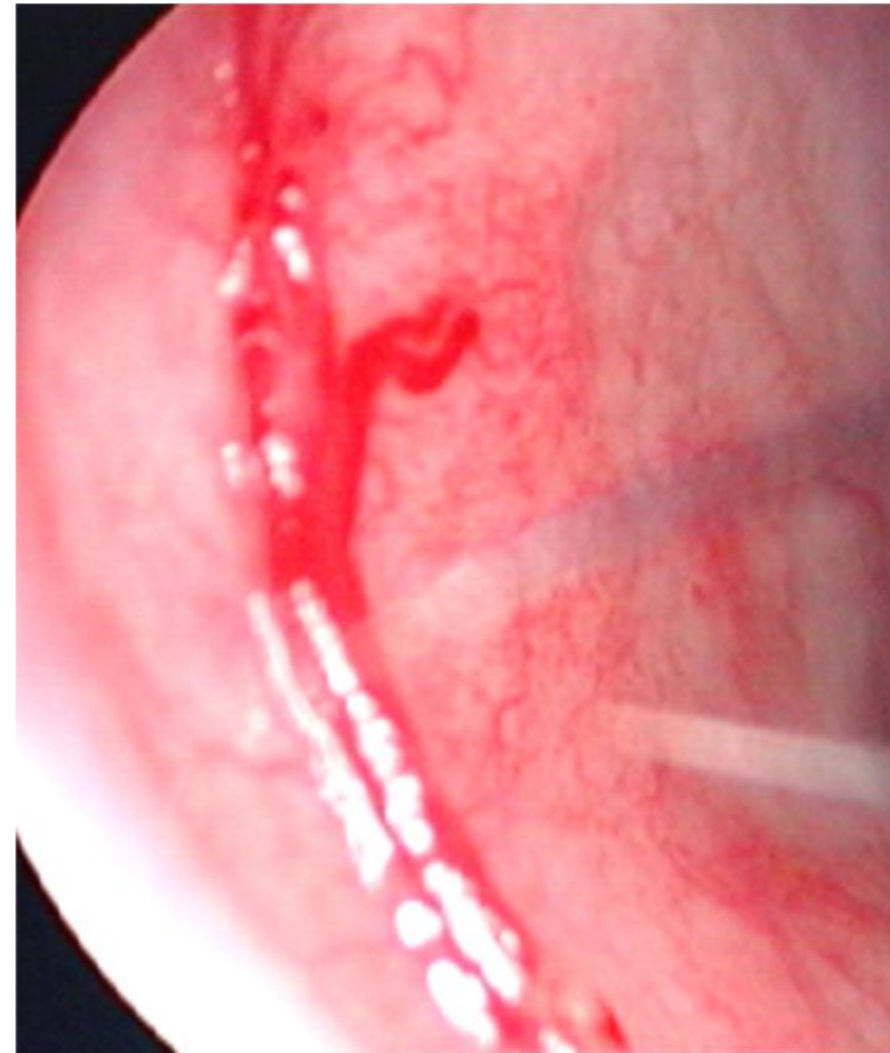
Vasomotor rhinitis

- All of the above
- No season
- Change in atmosphere
- Change in position



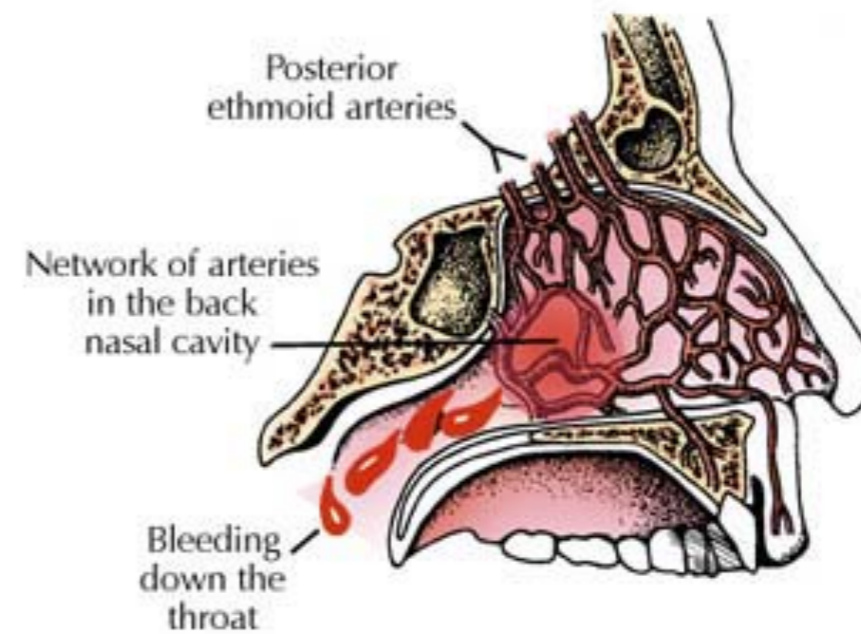
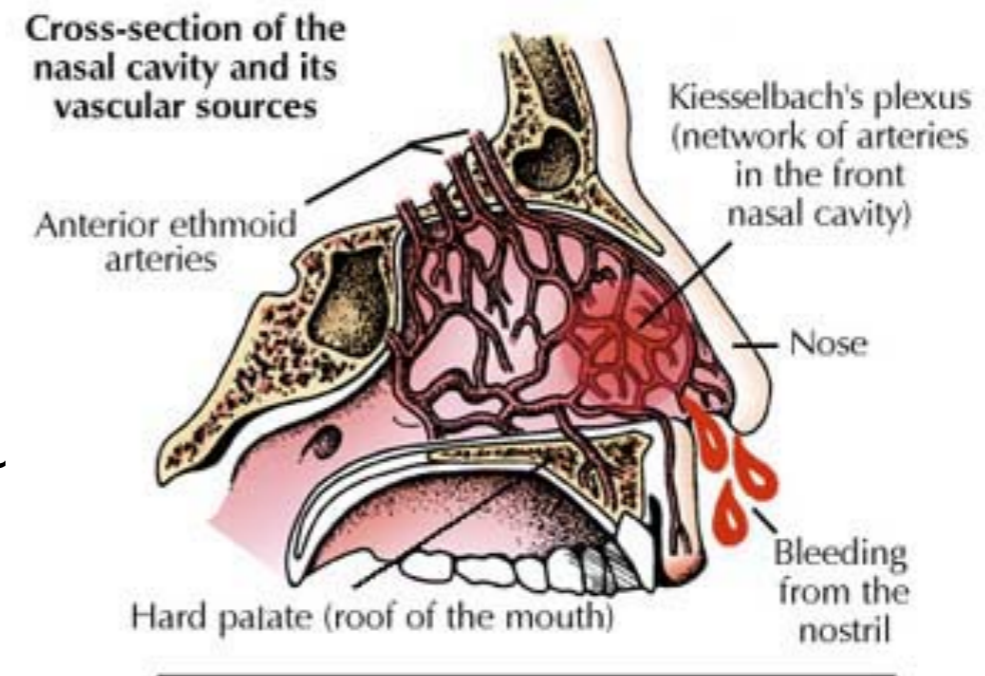
Epistaxis

- Injured nasal mucosa
 - Direct trauma
 - Blow
 - Self-inflicted
 - Indirect trauma
 - Sneeze



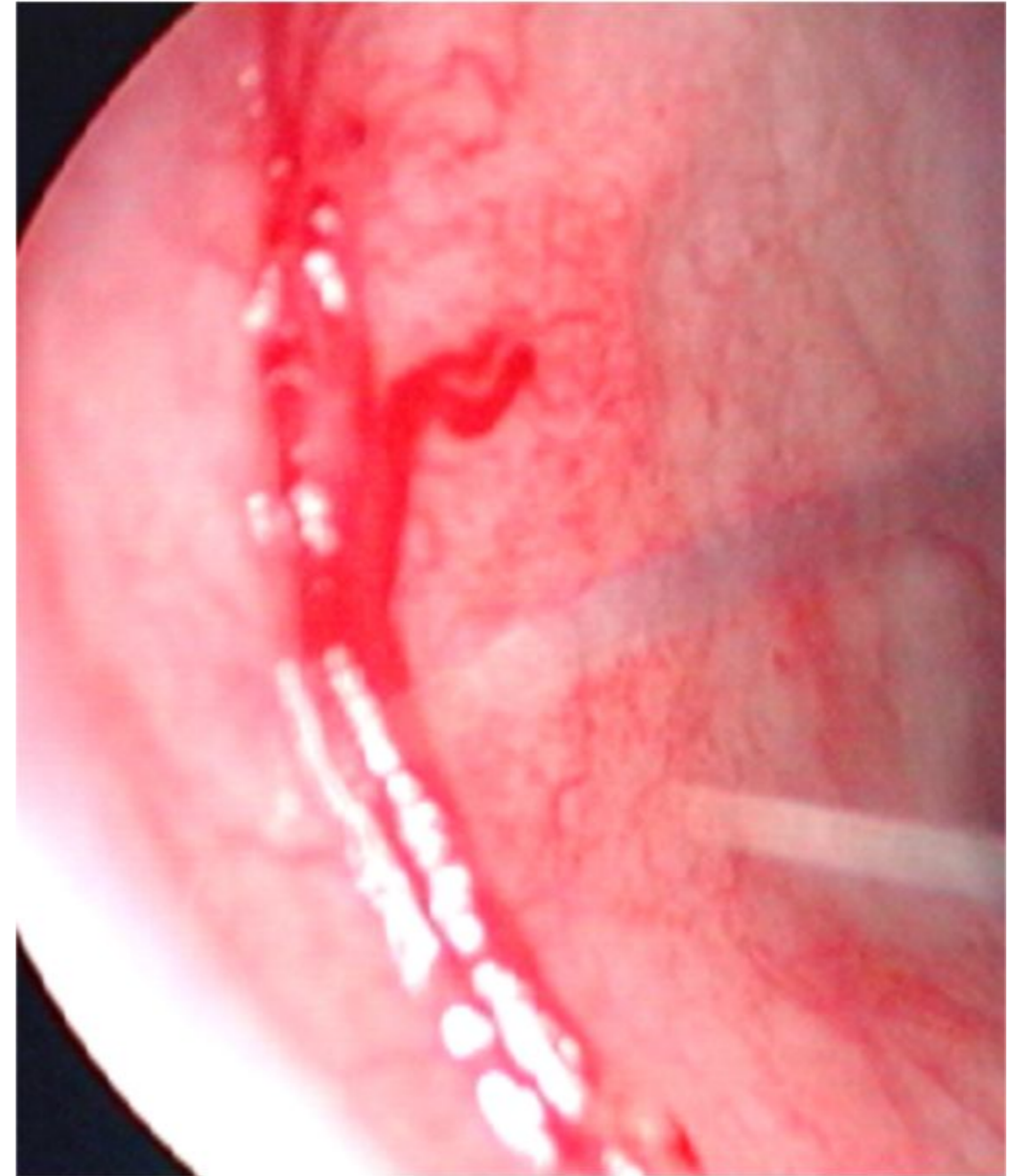
Site

- Anterior
 - Little's area
 - Kiesselbach plexus
 - 90%
- Posterior
 - 10%
 - Hypertension



Signs

- Brisk bleeding
 - From nostrils
 - Suggests anterior bleed
 - Blood in pharynx
 - Suggests posterior bleed
 - Spitting or swallowing
- Anxiety
- Nasal deformity with fracture
- Orthostatic change



Risk factors

- Digital trauma
- Cold air
 - Mucosal drying and ciliary decrease
 - Tobacco irritation
- Substance abuse
 - Alcohol
 - Cocaine
 - Inhalants
 - Nasal inhalers
- Coagulopathy
- Tumors



Treatment

- Anterior
 - Evacuate clot
 - Lean forward
 - Apply pressure over alae and upper lip
 - Pledget with phenylephrine, oxymetolazine, epinephrine
 - Consider cautery
 - Epi-balloon
- Posterior
 - Anterior and posterior balloons/packs



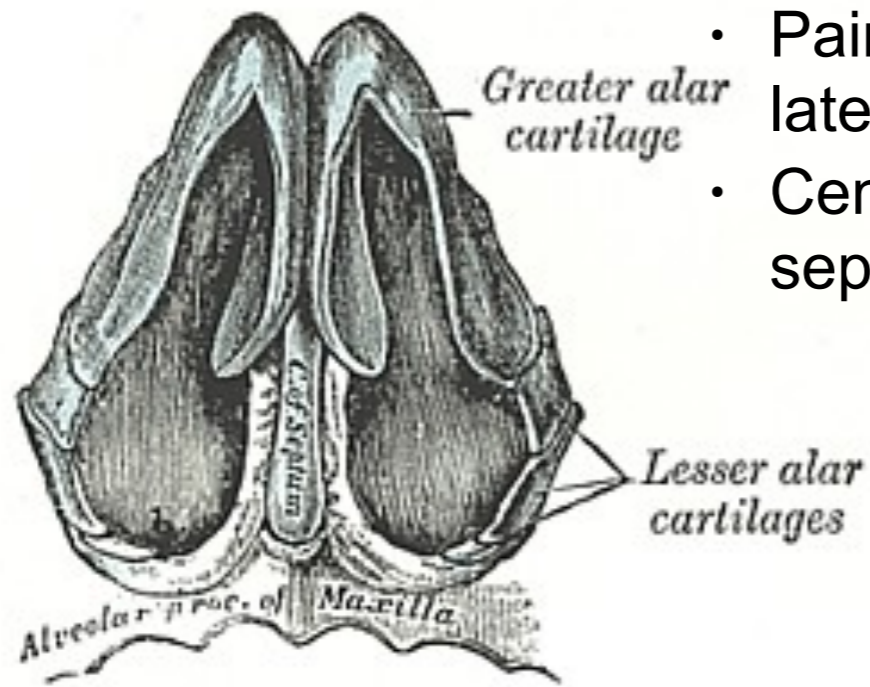
Fractures of Nasal Bones

- Most frequently injured facial structure
- Most occur in lower half of nasal bones



Anatomy

- Anatomy
 - Bony tripod
 - Paired nasal bones
 - Ethmoid as weak central strut
 - Cartilage
 - Paired upper and lower lateral cartilages
 - Central quadrangular septal cartilage



Signs/Symptoms

- Nasal deformity
- Epistaxis
- Nasal airway obstruction
- Periorbital swelling and ecchymosis



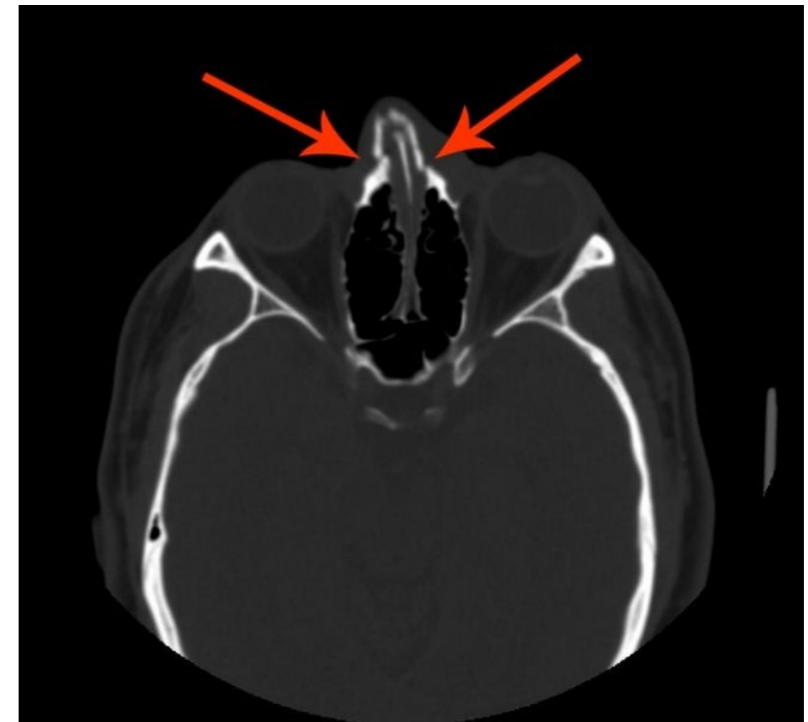
Associated injuries

- Septal hematoma
- Septal dislocation
- Cribriform plate injury
- Laceration
- Orbital fracture
- Concussion



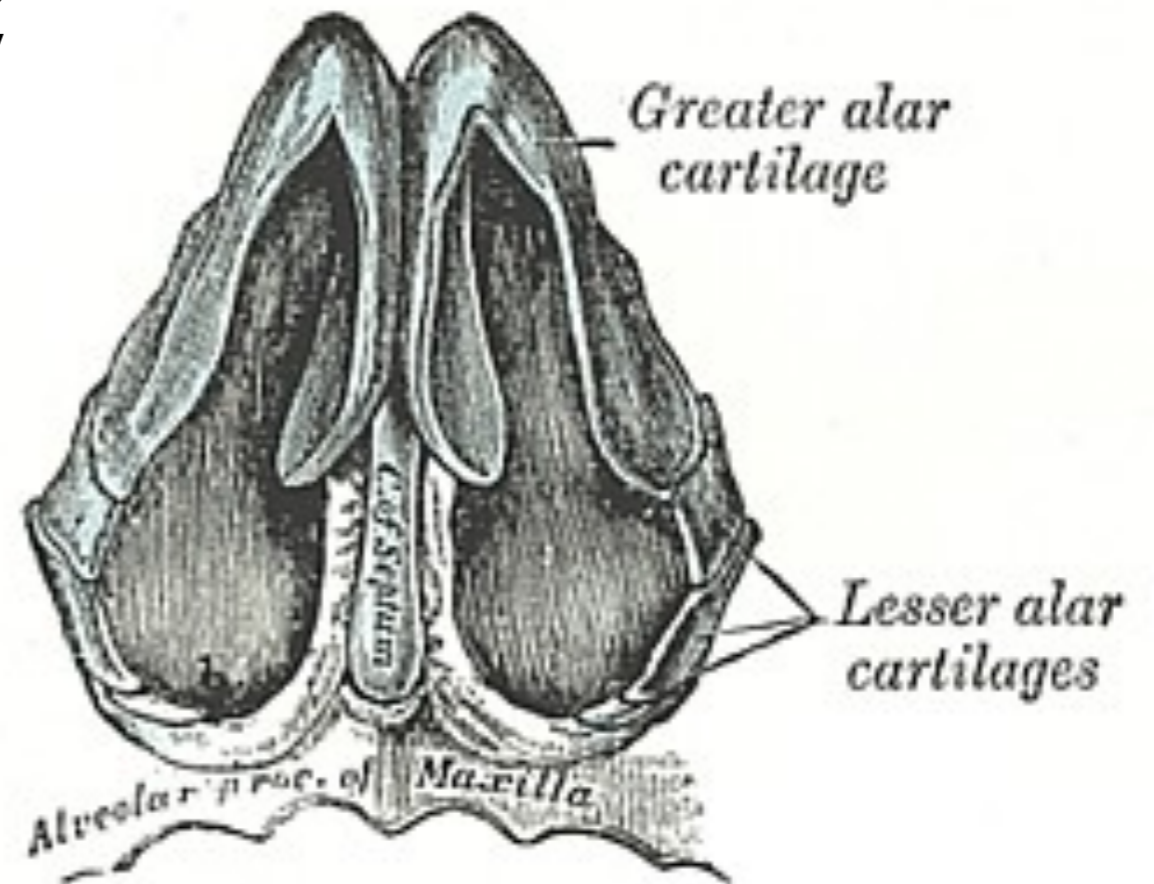
Assessment

- Palpate for crepitus
- Exclude septal hematoma or dislocation
- Consider immediate reduction, or
- Reassess after 3-5 days
- Usually, analgesics and re-examination
- Minimal displacement may not require reduction
- Elective reduction within 5-10 days
- Imaging not helpful



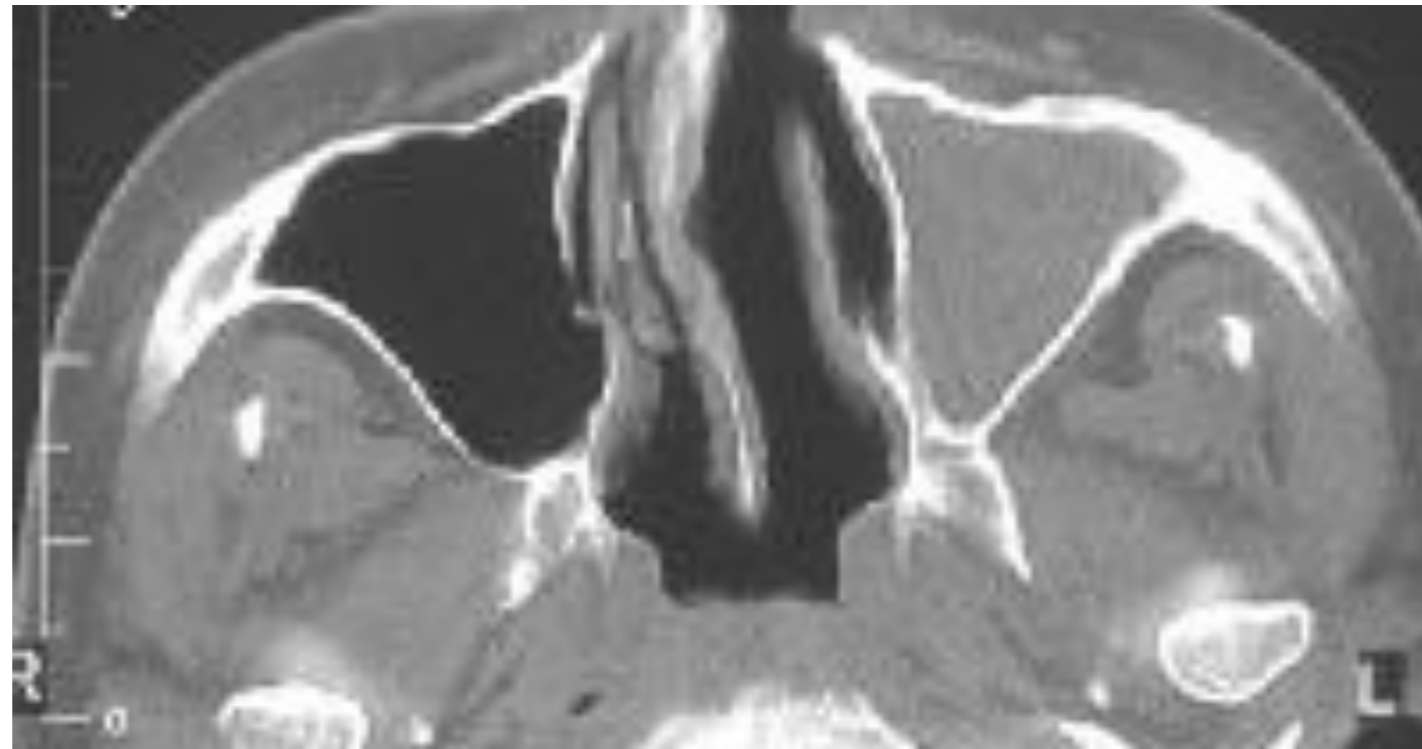
Deflected septum

- The airflow resistance provided by the airways during breathing is essential for good pulmonary function.
- The nose is responsible for almost two thirds of this resistance.
- Most of this resistance occurs in the anterior part of the nose.
- This region is called the nasal valve, and it acts as a flow-limiter.



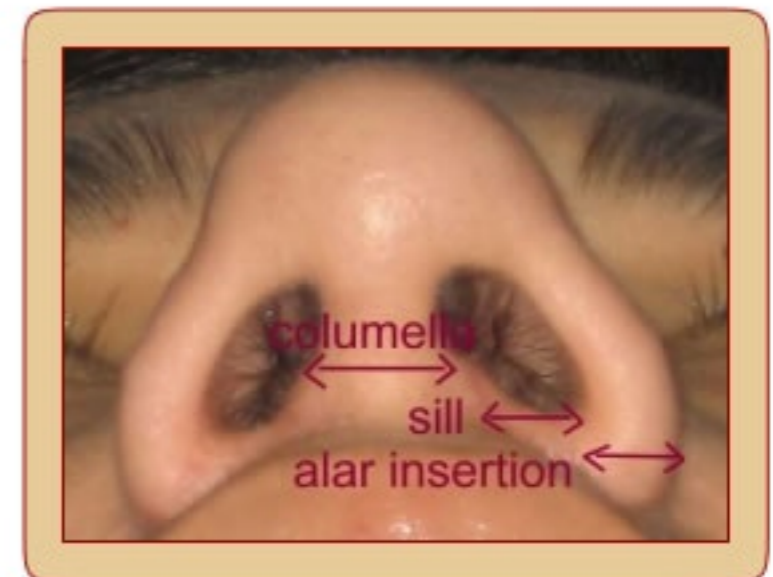
Deflected septum

- The nasal valve area is formed by the nasal septum, the caudal border of the ULC, the head of the inferior turbinate, and the pyriform aperture and the tissues that surround it. This area is responsible for more than two thirds of the resistance produced by the nose.



Deflected septum

- External nasal valve collapse is often found in patients who do not have a history of trauma or surgery.
- These patients commonly have an overprojecting nose with extremely narrow nostrils.
- Another cause can be an extremely wide columella.
- Deviations of the caudal septum are the most common cause of valvular collapse. They are usually secondary to trauma.



Septal hematoma

- Trauma
 - Bleeding between cartilage and mucosa
- Unilateral or bilateral
- Associated nasal fracture usual
- May lead to pressure necrosis and 'saddle nose'



Signs/Symptoms

- Epistaxis
- Nasal deformity
- Swelling
- Ecchymosis
- Pain
- Crepitation
- Difficulty breathing through nose



Treatment

- Needle aspiration
 - Sharp incision and drainage
 - Local anesthetic
 - General anesthetic
- Anterior nasal packing
 - Staph aureus

