

EAR, NOSE AND THROAT

(14)Nose IV

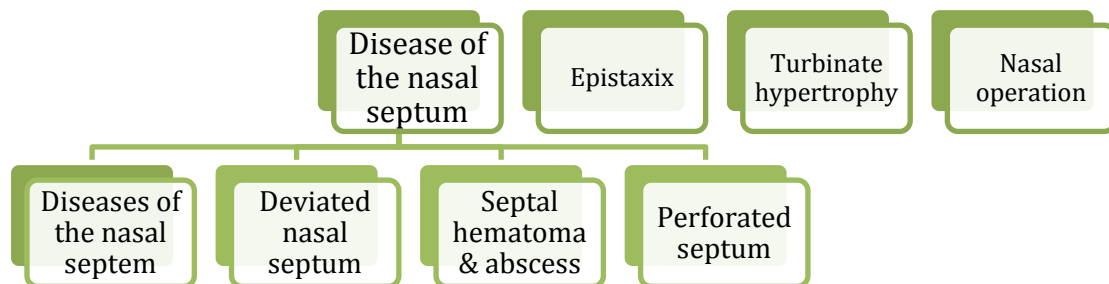
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Objectives:

Not provided



Diseases of the nasal septum

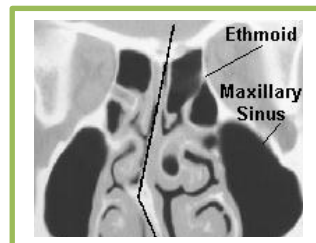
1- Deviated nasal septum

Etiology:

- Trauma.
- Maldevelopment. → Congenital

Symptoms:

- Nasal obstruction.
- External deformity.
- Crusting, epistaxis. Due to dryness



Diagnosis: The diagnosis is mostly clinical in deviated septum.

Radiology is unnecessary in most cases.

Treatment:

- No treatment. If the patient was Asymptomatic
- Septoplasty. (In Septoplasty they usually lift the mucosal flap from the nose then remove the deviated part and put internal splints. Nowadays we go in with certain techniques “we crush the deviated part with a specific tool for that” to repair the cartilage and put it back in place and also put splint inside “removable after 5 days”).

Complications of Septoplasty:

- Septal hematoma And abscess. → due to infection
- Septal perforation.
- Nasal deformity.
- Synechia (Adhesions). → will lead to obstruction

In septal hematoma, the cartilage of the septum receives its blood supply from the perichondrium, so if the hematoma was central it'll separate the perichondrium from the septum → Necrosis & deformity

And if you a central hematoma → emergency/direct drainage.

2-Hematoma of the septum

Etiology:

- Direct trauma.
- Operative trauma. “Septoplasty”
- Blood dyscrasias. “bleeding disorders”



Clinical features:

Obstruction, bleeding, lacerations, ...

Complications:

- Cartilage necrosis.
- Septal abscess.
- Permanent thickening of the septum. At the site where the hematoma has developed → very common in patients who have gotten a Septoplasty due to trauma “it’ll appear as a mass”

Treatment:

- Incision and drainage. **Emergency**
- Systemic Antibiotics. **As a prophylactic**

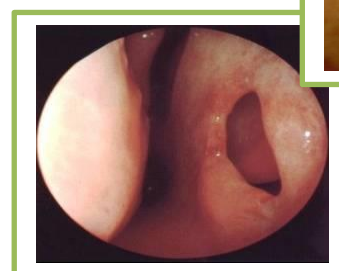
3- Perforation of the septum

Clinical features: “clinical features depend on the size and the site of the perforation”

- Asymptomatic.
- Crusting. Due to turbulence of air
- Epistaxis.
- Whistling. “the smaller the size of the perforation the more the whistling”
“And the bigger the perforation → the more obstruction → due to air instead of going back to the nasopharynx there’s going to be turbulence “

Treatment:

- No treatment. “in Asymptomatic patients”
- Nasal wash.
- Surgical closure.



Surgical reduction of the Inferior Turbinates

Turbinate is another name for concha.

- Turbinate resection, Total “not done anymore because it’ll cause the loss of all the imp functions of the nose like ex: protection and conditioning” or partial.
- Out fracturing of the inferior turbinate. “to widen the airway, Dr said know the name of this procedure”
- Destructive procedures, including electro cautery, cryosurgery, laser surgery, and submucous resection.

According to the doctor, nowadays we prefer going with the submucous resection due to less symptoms and less bleeding.

But still the electro cautery is one of the best options but the problem with it is that it doesn’t provide permanent results (lasts for 3 years only) “temporary”

Causes of hypertrophy:

- Compensatory mechanism in septal deviation.
- Rhinitis with chronic use of vasoconstrictors → rebound.

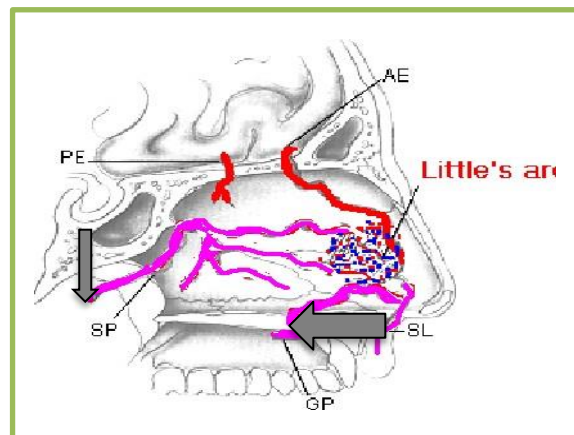
4-Epistaxis

Why bleeding from the nose?

- Vascular organ secondary to incredible heating/humidification requirements.
- Vasculature runs just under the mucosa. “Very rich in blood supply”
- Arterial to venous anastomoses.
- ICA and ECA blood flow.

Sites:

- Anterior (Little’s area)
- Posterior (vicinity of sphenopalatine foramen)



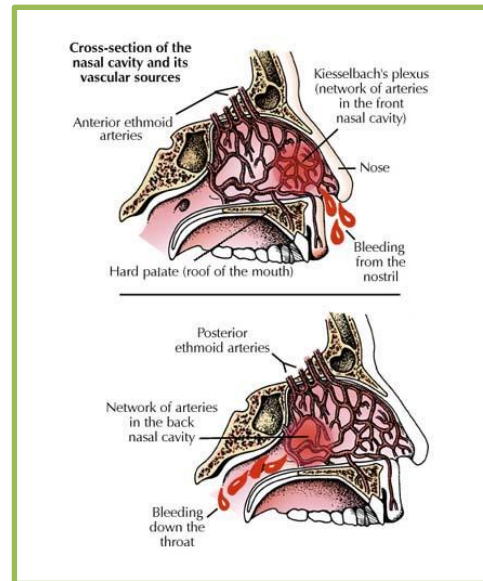
Kesselbach's plexus/Little's area:

1. Anterior Ethmoid (Ophth)
2. Superior Labial A (Facial)
3. Sphenopalatine A (IMAX)
4. Greater Palatine (IMAX)

Woodruff's plexus:

-Sphenopalatine A (IMAX)

IMAX= Internal Maxillary Art.



Anterior ethmoid art → came from ophthalmic → from internal carotid

Superior labial Art → From facial → from external carotid artery

Sphenopalatine → IMAX → From external carotid artery

Greater palatine → Imax → External carotid artery.

External carotid gives many branches in the neck, starting from: the superior thyroid, lingual, posterior oracular/occipital, internal maxillary, superficial temporal.

Internal carotid branches in the neck → None, it moves upward into the brain and form the circle of wills then give the ophthalmic branch.

Local causes:

- Acute trauma.
- Chronic trauma.
- Deviated septum.
- Inflammation of the nose and sinuses.
- Tumors.
- Idiopathic.

Systemic causes:

- Coagulation and bleeding diseases.
- Atherosclerosis.
- Familial hemorrhagic telangiectasia, "Autosomal dominant disease where they have no muscles around the blood vessels thus will present with burses and GI bleeding"

Management:

- General measures. "ABC"
- Stop the bleeding.
- Prevent further bleeding.

Control the bleeding

- Digital pressure. +Leaning forward
- Cautery. "With silver nitrate"
- Anterior nasal packing,
- Postnasal packing,
- Arterial ligation
 - Maxillary, Ethmoids, External carotid
- Arterial embolization.

In anterior nasal packing, it can be used for as long as needed. But usually we have to remove it before 24 hours or in left more then you need to give prophylactic Antibiotics → to prevent against infection "toxic shock syndrome"

Angiofibroma

- Juvenile nasopharyngeal
- Benign
- **Adolcent Males** "always males between 10-20 try to exclude angiofibroma first"
- Frequent chronic epistaxis
- Nasal obstruction
- Rhinorrhea
- Conductive hearing loss
- Diplopia
- Otitis Media
- Treatment: embolization & Surgery



Cases:

A 25 years old man post RTA with fever and nasal obstruction.

What is your diagnosis? **Infected hematoma**

What is your management? **Incision and drainage**
Antibiotics +

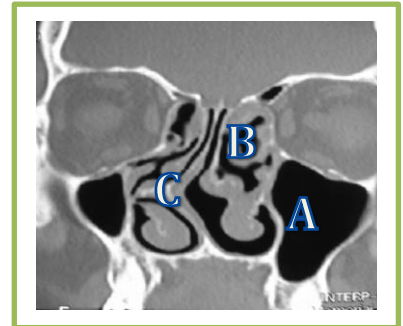


What is this radiological study? What is A,B and C?

A= Maxillary sinus "left"

B= Ethmoid sinus "left"

C= Deviated septum

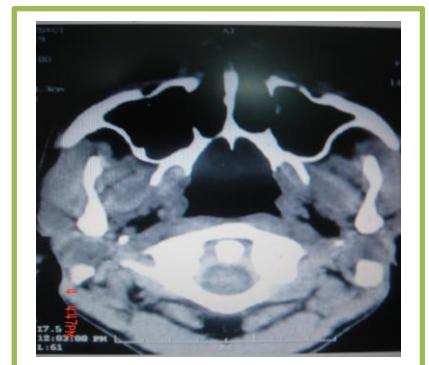


This is a CT scan of a newborn who presented with respiratory distress.

A- what is your diagnosis? **Choanal atresia**

B- what is the management?

First we give an oral airway called "nipple" (intubation through the mouth). Then, the final management "after 2 weeks or 3" surgical opening.



Summary

- Diseases of the nasal septum: Deviated septum, Septal hematoma and abscess, Perforated septum.
- Deviated septum occurs due to trauma or maldevelopment (congenital).
- Symptoms include nasal obstruction, external deformity, and crusting or epistaxis.
- In deviated septum the diagnosis is **mostly clinical**.
- We only treat a septal deviation if the patient was symptomatic, and the surgery is called Septoplasty.
- Complications of Septoplasty include: Septal hematoma and abscess, septal deformity, Nasal deformity, and adhesions.
- Causes of nasal hematoma include: direct trauma, operative trauma, blood dyscrasias.
- Cartilage necrosis, septal abscess, and permanent thickening of the septum are some of the hematoma's complications.
- Treatment is by incision and drainage and prophylactic systemic antibiotics.
- In a perforated septum, the patient will present to you with crusting, epistaxis, whistling, or could even be asymptomatic.
- Treatment include a nasal wash or surgical closure.
- Epistaxis is divided according to site into anterior (Kesselback's plexus/Little's area), and posterior (Woodruff's plexus).
- Angiofibroma is a benign tumor in the nasopharynx that occurs in **males** between **10-20 years of age**.
- Treatment: embolization & surgery.

For mistakes or feedback

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