

Diseases of the nasal septum.

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Objectives

- 1.To know the different nasal septal pathologies.
- 2.To know the causes of nasal septal diseases..
- 3.To identify the clinical features of nasal septal diseases.
- 4.How you treat nasal septal diseases

Diseases of the nasal septum.

Nasal septum is midline structure divided the nasal cavity in to two fossa right and left nasal fossa. Composed of mucosa,perichondrium,and cartilage in cartilaginous part and mucosa, periosteum, bone in bony part.,

Functions of nasal septum:

- 1.It affect the nasal function (breathing, olfaction, heating and humidification of inspired air.)
- 2.Support nasal dorsum, columella and tip.(cosmetic)

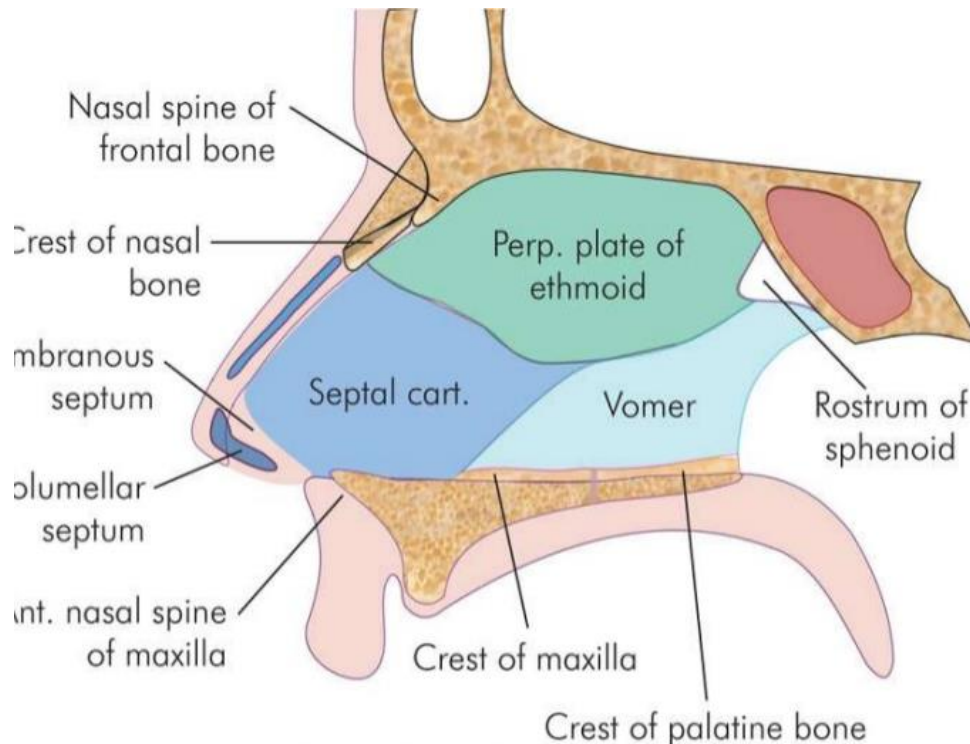


Fig. 27.1e Normal septum

1.Septal deviation.

Nasal septum is rarely exactly in mid line
minor deviation is normal.

Causes.

1.Trauma;fracture nose .
fracture septum

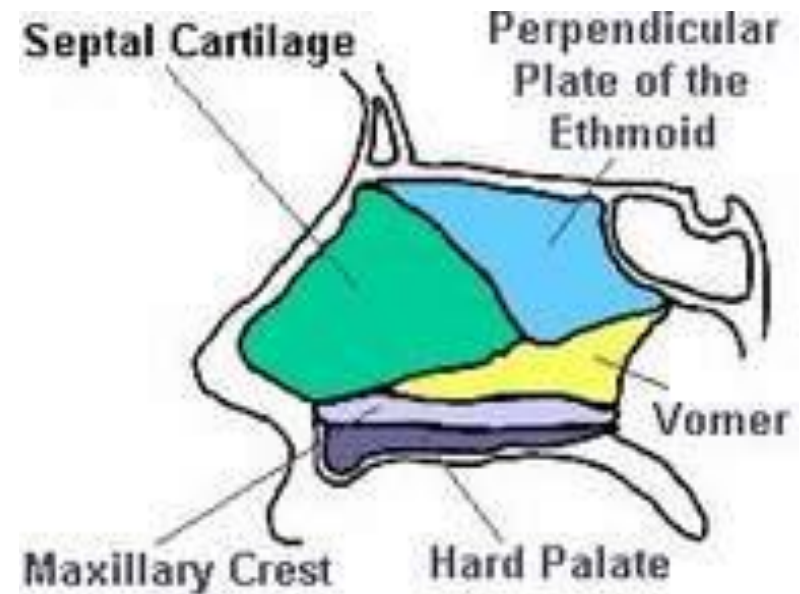
2.Developmental;*When the septum grows faster rate, so become buckled, and **unequal growth between palate and base of skull cause buckling as in high arched palate.

3.Congenital;*abnormal intrauterine posture cause compression of the fist on nose and upper jaw.

*birth moulding theory.

4.Hereditary.Racial Caucasians are more affected.

5.Secondary to tumor (polyp,mass) pushing the septum .



Clinical features of septal deviation

1. **Nasal obstruction**. clinically divided in to

- a. Simple deviation.
- b. Obstructed.
- c. Impacted septal deviation.

*(unilateral, bilateral)

2. **Epistaxis** (bleeding). Dryness, crustation.

3. **Headache and facial pain**, due to

.(*sinusitis, **sphenopalatine neuralgia, ***anterior ethmoid neuralgia,

4. **Anosmia** of conductive type.

5. **Cosmetic complaints**.

(deviated nose, saddle nose, columella retraction,.

Types of deviations .

*C-shape, *S-shape, *caudal subluxation. *septal spur,

* **Investigation; Ct scan**

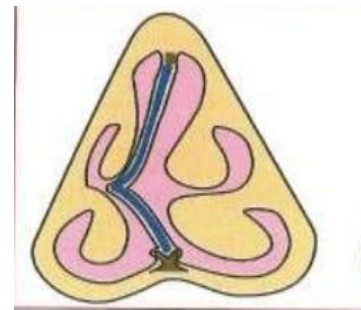
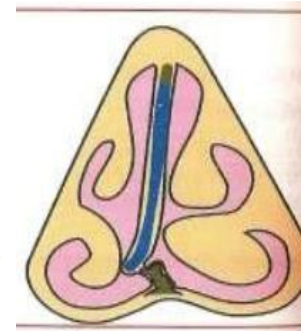
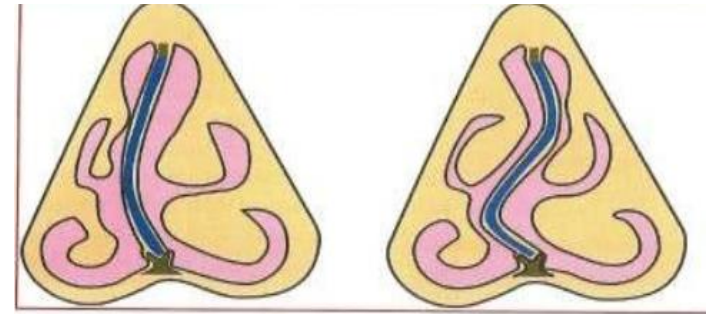
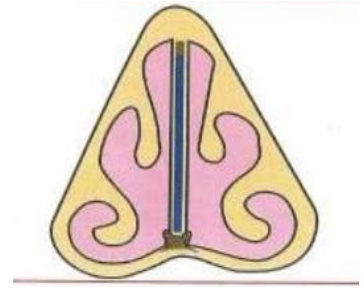
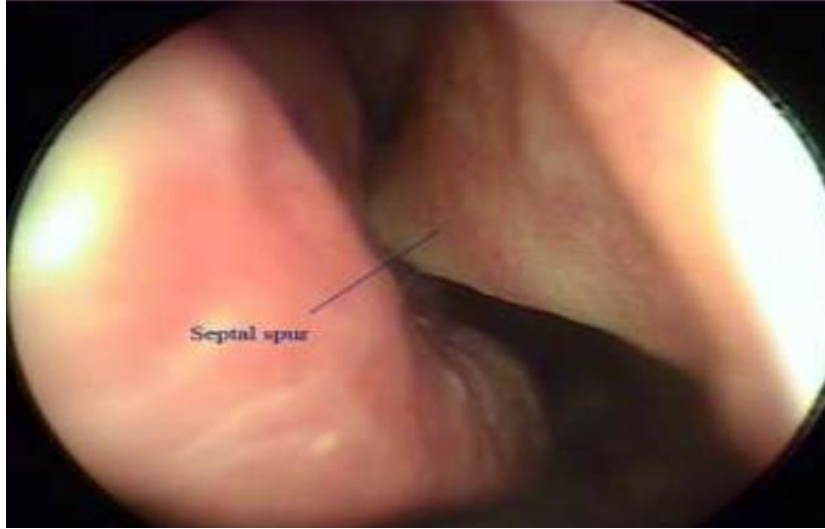


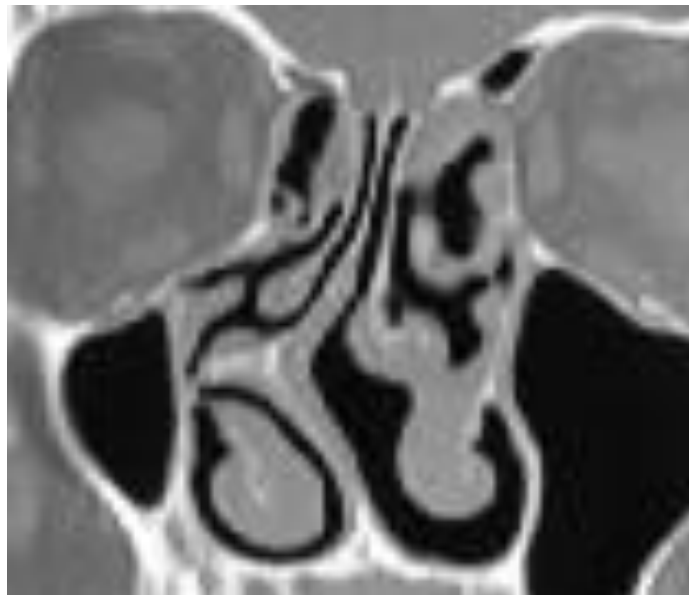
Fig. 27.1d Septal spur



caudal
dislocation



CT scan of the nose and
paranasal sinuses (axial and
coronal) show impacted
septal deviation



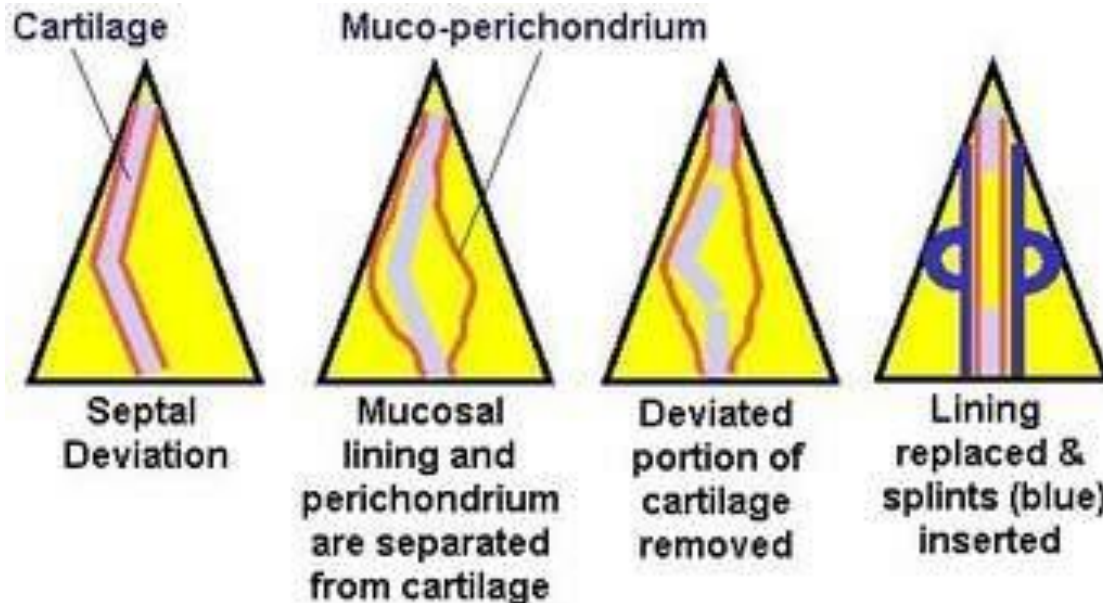
Treatment.

* Asymptomatic septal deviation ,no treatment.

* Sypmtomatic septal deviation . Surgery : septoplasty (The straightening of the nasal septum by removing the deviated cartilaginous and bony portions.

* Commonly for functional reason (improve nasal patency in nasal obstruction) and cosmetic reasons(when external nasal deformities)

* Conservative septoplasty , in children and adolescents under 15–17 years of age, as damage the growth zones of the septum, causing long-term problems



2.Septal haematoma;

Is subperichondral collection of blood in the nasal septum.

Causes

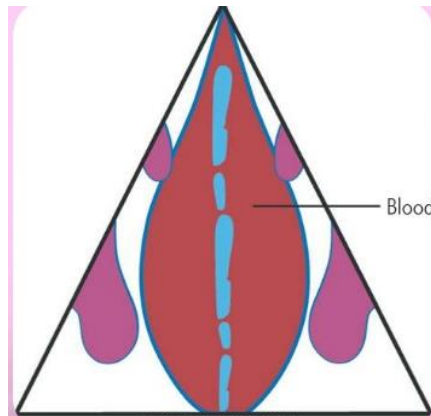
- 1.nasal trauma.Common in children due to a fracture or dislocation of the cartilaginous septum, they mostly occur in the anterior septum.
- 2.Septal surgery.
- 3.Blood diathesis.(rare)

Clinical features: The patient presented with nasal obstruction.

The hematoma appears as cystic swelling bluish red in color protrudes into the vestibules and completely obstructs the nasal entrance on both sides.

*Probing indented ,*aspiration reveal blood. Early diagnosis is important, the delay diagnosis leads to septal necrosis, and abscess formation.

Treatment; Urgent surgical drainage within 72 hours and antibiotics.



3. Septal abscess:

Subperichondrial Collection of pus in the nasal septum.

Causes. 1. Usually follows delay drainage of septal haematoma 3-5 days.

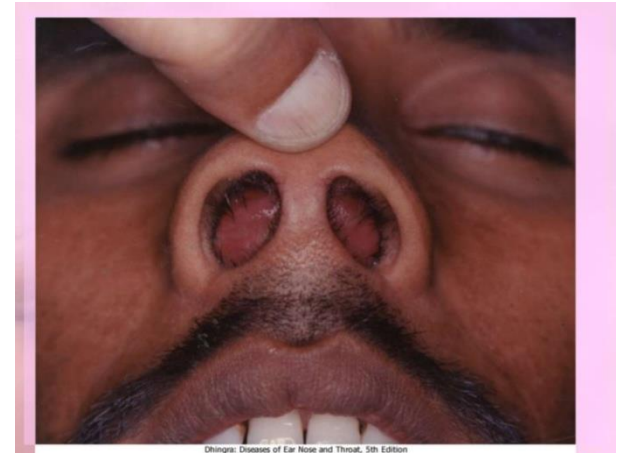
2. Nasal infection (vestibulitis)

Clinical features: There are fever, nasal obstruction and pain over bridge of the nose and tenderness. Aspiration reveal pus.

Treatment ; Drainage of abscess and antibiotics .

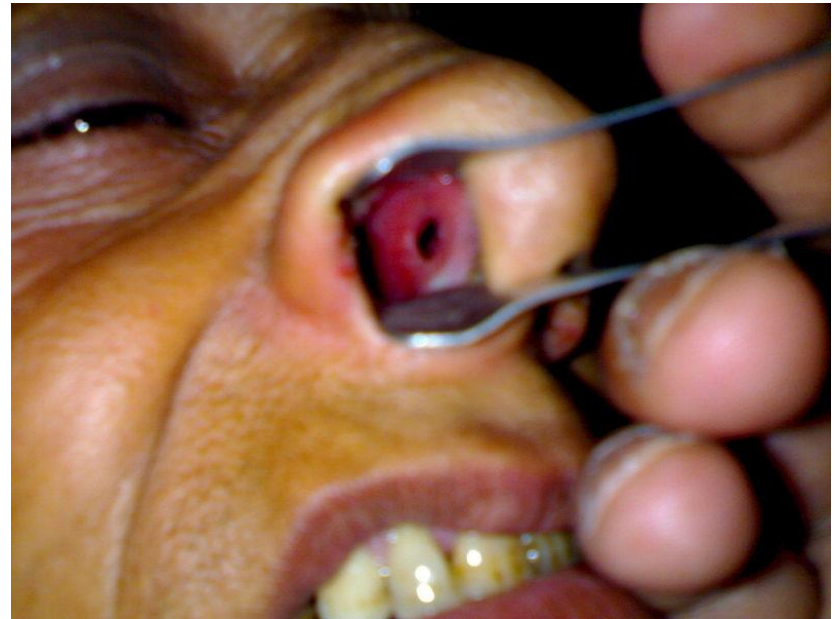
The reconstruction of defect in acute phase will reduce growth impairment.

Complications ; 1. Cavernous sinus thrombosis.
2. Saddle nose.
3. Septal perforation.



4. Septal perforation. Causes

- 1. Trauma;** It the most common cause like
 - A. Septal cautery for epistaxis.
 - B. Nose picking.
 - C. Septal surgery (iatrogenic).
- 2. Surface irritant;** cocaine sniffing, and heroin.
- 3. Infection.** *TB. cause anterior cartilagenous, *syphilis cause poasterior bony perforation., *diphtheria, *leishmaniasis.
*mucor mycosis,...
- 4. Neoplastic** sequamous cell carcinoma. melanoma, adenocarcinoma, haemangioma
- 5. Inflammatory;** sarcoidosis, relapsing polychondritis, wegener's granuloma.



Clinical features.

Usually asymptomatic.

1. Nasal obstruction, dryness crustation, epistaxis. these related to abnormal aerodynamics.

Anterior small perforation more symptoms than posterior perforation. (Whistling) ,

Treatment;

* majority are asymptomatic and require **no specific treatment**.

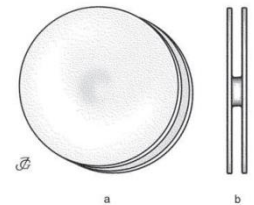
* symptomatic perforation

* Non-surgical treatment ; includes

* nasal douches alkaline , or normal saline.

* Ointment.

* Obuturation (Button)



*Surgical treatment; For small to medium hole can be closed by surgery.

* Local nasal flap.

* Buccal mucosal.

* Free graft composite (autograft.)

5. Intranasal adhesion; Synechia.

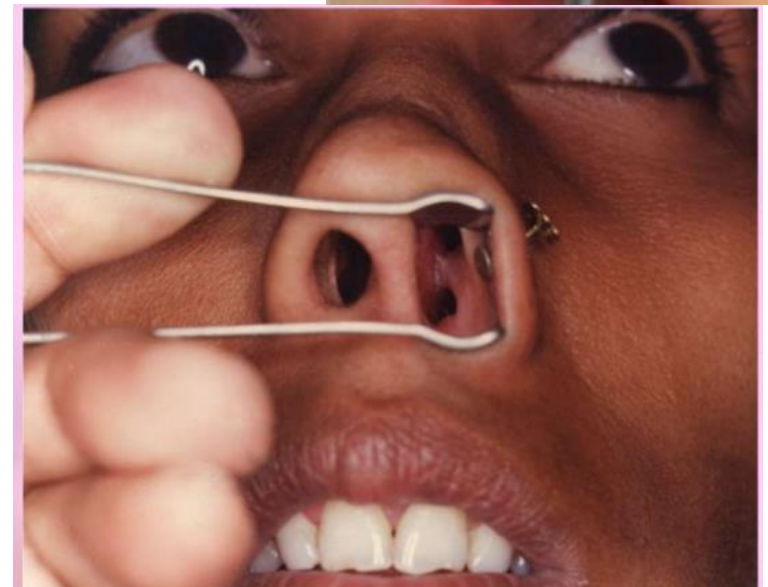
Turbinate with septum, or turbinate to lateral wall.

Causes;

1. Nasal surgery (septoplasty, polypectomy, FESS.)
2. Nasal packing
3. Trauma fracture nose.
4. Foreign body. (button battery)

Treatment .remove of synechia.

And Insertion of nasal splint to prevent recurrence.



6. Congenital nasal septal anomalies.

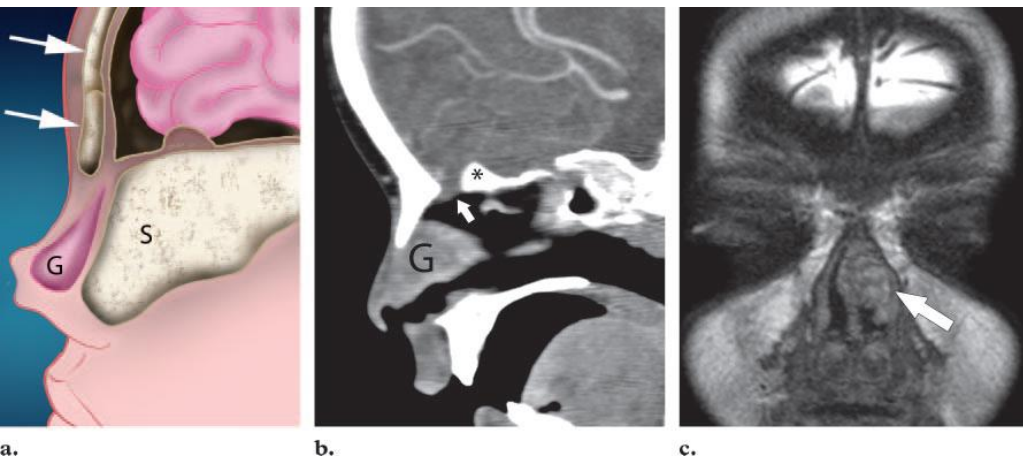
Are rare like developmental midline nasal masses in children.

- *Encephalocele(have intracranial extension.(Increased by coughing)

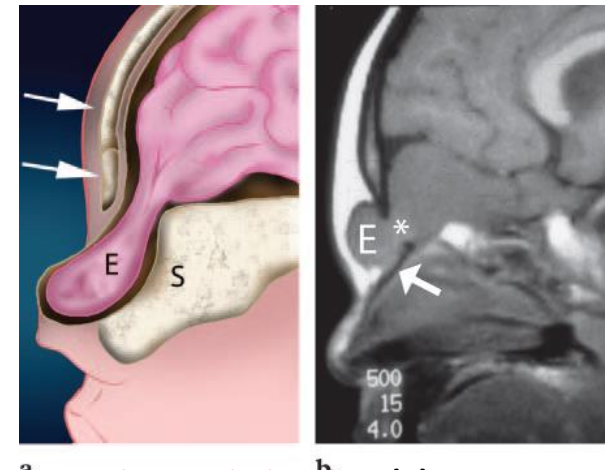
- *Nasal glioma(no intracranial extension).

- *nasal dermoid.

- *magnetic resonance (MR) imaging is essential to characterize and map the lesions. High-resolution computed tomography (CT) may be helpful in older children.



Intranasal glioma (heterotopia). (a) Diagram shows an intranasal glioma, a lesion composed of brain tissue (G) that became trapped in the prenasal space and disconnected from the intracranial contents during normal closure of the frontal and nasal bones (arrows).



Frontonasal encephaloceles. (a) Diagram shows the formation of a nasoethmoidal encephalocele (E) as a result of failed obliteration of the prenasal space during gestation.(intracranial extension)

THE END

Thank you