SIGNS IN OTORHINOLARYNGOLOGY

**ANROTH'S SIGN**
Chemosis and Edema of Conjuctiva and Lids.

**AQUINO'S SIGN**
Blanching of the tympanic mass with gentle pressure on the carotid artery. Seen in **Glomus tumors**

**BATTLE SIGN**
Bruising behind ear at mastoid region, due to petrous temporal bone fracture.

**BARBER CHAIR SIGN / LHERMITTE PHENOMENON or sign**
It's an electric shock like sensation in the spine & extremities exacerbated by neck flexion due to reversible demyelination of sensory neurons 1 to 3 months following RT of cervical and thoracic spine and lasts around 8 to 9 months.

*Note* – mostly confused with **Lemierre syndrome** i.e. infectious thrombophlebitis of the internal jugular vein as a complication of a bacterial (mostly *Fusobacterium necrophorum*) sore throat infection in young, otherwise healthy adults.

**BERRY'S SIGN**
In goiter, the carotid artery may be pushed posteriorly by the enlarged thyroid called displacement. When the infiltration of the carotid by the tumor, the carotid pulse will be absent on that side. This absent carotid pulse is called Berry's sign.

**BEZOLD SIGN**
Inflammatory oedema at the tip of mastoid process in case of descending mastoiditis.

**BOCCA'S SIGN**
Absence of post cricoid crackle (Muir’s crackle) in **Ca post cricoid**.

*Presence of Muir’s crackle is Muir sign*

**BRUDZINSKI SIGN**
In meningitis, bending the patient's neck usually produces flexion of the knee and hip.

**BRYCE'S SIGN**
In case of combined laryngocele, compression of external component of laryngocele or laryngopyocele may empty air and fluid to the internal component causing hissing sound (in case of air). (forbidden and
dangerous as air from the external component may get forced into the internal component causing acute airway obstruction)

**BROWNE'S SIGN**

Refers to the blanching noted when applying positive pressure {with Siege's speculum} to the tympanic membrane of a patient with **Glomus tumor**.

**CHEVALIER JACKSON'S SIGN**

Presence of pooling of saliva in pyriform fossa

**DELTA SIGN (Empty Triangle Sign)**

*Lateral sinus thrombosis* on CT or MRI with contrast shows an empty triangle appearance of the *thrombosed sinus* surrounded by contrast enhanced dura.

**DODD’S SIGN / CRESCENT SIGN**

X-ray finding – Crescent of air between the mass and posterior pharyngeal wall. *Positive in AC polyp*. *Negative in Angiofibroma*

**DONUT SIGN**

When the glottic growth infiltrates the ligament, it will lead to puckering and resultant donut sign.

**FONTAINE SIGN**

Carotid body tumour is more freely movable horizontally than vertically owing to attachment to carotids, called Fontaine sign.

**FRIEDMAN SIGN**

Assessment (Intraoperative / postoperative) of frontal sinus patency by transillumination.

**FRENZ SIGN**

Congestion of anterior pillars seen in tonsillitis.

**FURSTENBERG'S SIGN**
Positive in Encephalocoele. Owing to the intracranial connection, there is pulsation and expansion of the mass with crying, straining, or compression of the jugular vein (Furstenberg test). This is used to differentiate Nasal Encephalocoele from other congenital midline nasal masses like Nasal Glioma.

**GALAXY SIGN** (sarcoidosis of lungs)

The so-called galaxy sign, initially described as the sarcoid galaxy, represents a coalescent granuloma seen in a minority of patients with pulmonary sarcoidosis. The same appearance can be seen in tuberculosis.

**GRIESINGER’S SIGN**

Erythema and oedema posterior to the mastoid process resulting from septic thrombosis of the mastoid emissary vein. Seen in lateral sinus thrombosis.

**GUTTMAN SIGN**

Nasal – Important sign of the successful stellate ganglion block. The nasal stuffiness or nasal congestion that occurs as a result of the obstruction of the ipsilateral half of the nose is called gutmann sign.

Larynx – Frontal pressure on the thyroid cartilage lowers the tone of voice produced and lateral pressure produces a higher tone of voice. The opposite is true with paralysis of the cricothyroid muscle i.e. SLN palsy.

Thyroid – Gutmann sign – thyroid gland bruit heard in patients with thyrotoxicosis.

**GYRUS RECTUS SIGN**

Low lying gyrus rectus in case of deep olfactory fossa (an indirect evidence of CSF fistula).

**HALO / DOUBLE RING SIGN**

CSF otorrheoa/rhinorrhea

For determining whether bloody discharge from the ears or nose contained cerebrospinal fluid (CSF) – Uses the principle of chromatography: different components of a fluid mixture will separate as they travel through a material (in this case blood in centre and CSF at periphery).

**Cochlear Otosclerosis**

Double ring cochlea or Halo's sign – otosclerosis extends progressively until it affects all the oval window margins and the otic capsule of the inner ear, which is revealed as ring of lucency around the cochlea; this is the cochlear otosclerosis stage.

**HITSELBERGER’S SIGN**
In Acoustic neuroma – loss of sensation in the postero-superior part of external auditory meatus supplied by Arnold’s nerve (branch of Vagus nerve to ear)

**HOLMAN MILLER SIGN OR ANTRAL SIGN**

The anterior bowing of the posterior wall of the antrum seen on lateral skull film. Pathognomic for juvenile nasopharyngeal angiofibroma.

**HONDOUNSA SIGN**

X-ray finding in Angiofibroma indicating infratemporal fossa involvement characterized by widening of gap between ramus of mandible and maxillary body.

**HENNEBERT'S SIGN**

It is a false positive fistula test when there is no evidence of middle ear disease causing fistula of horizontal semicircular canal. It is seen in 25% cases of Meniere’s disease or congenital syphilis. In 25% cases of Meniere’s, fibrous bands form connecting utricular macula to stapes footplate. In syphilis due to hyper mobile stapes footplate.

Hennebert sign – pressure induced nystagmus

Hennebert symptom – Pressure induced dizziness

**IRWIN MOORE SIGN**

In chronic tonsillitis, discharge of toothpaste like material on pressing the anterior pillar against tonsil.

**KERNIG SIGN**

Kernig’s sign is positive when the thigh is flexed at the hip and knee at 90° angles, and subsequent extension in the knee is painful (leading to resistance). This may indicate subarachnoid hemorrhage or meningitis.

**LAMDA SIGN** (thoracic sarcoidosis)

Seen in thoracic sarcoidosis on Gallium 67 scan. Bilateral hilar and right paratracheal lymph nodes are typically involved which can resemble the lambda symbol.

**LAUGIER’S SIGN**

Blood behind the eardrum suggests basilar skull fracture.

**LIGHT HOUSE SIGN**

A small pin hole perforation with a pulsatile ear discharge is seen in acute suppurative otitis media.

**LEUDET'S SIGN**
Inflammation of the eustachian tube can produce a bright clicking sound heard by the examiner through the otoscope while the patient experiences it as tinnitus, caused by reflex spasm of the Tensor Palati muscle.

**LYRE’S SIGN**

A vascular mass on bifurcation of Carotid arteries, and bowing with displacement of internal carotid artery in **carotid body tumor**.

**MAC EWAN SIGN**

Tapping the skull near the junction of the frontal, temporal and parietal bone will produce a stronger resonant sound when either hydrocephalus or a brain abscess is present.

**MILLIAN’S EAR SIGN**

**Erysipelas** can spread to pinna (Cuticular affection) leading to this sign, whereas cellulitis cannot.

Cellulitis and erysipelas manifest as areas of skin erythema, edema and warmth in the absence of underlying suppurative foci.

They differ in that erysipelas involves the upper dermis and superficial lymphatics, whereas cellulitis involves the deeper dermis and subcutaneous fat. Since pinna doesn’t have deeper dermis it is unaffected by cellulitis.

As a result, erysipelas has more distinctive anatomic features than cellulitis; erysipelas lesions are raised above the level of surrounding skin, and there is a clear line of demarcation between involved and uninvolved tissue. Erysipelas has "butterfly" involvement of the face.

**MUIRS SIGN**

Presence of post cricoid crackle (Muir’s crackle).

*Absence – Bocca’s sign*

**NIKOLSKY SIGN**

Useful in differentiating between the diagnosis of pemphigus vulgaris or mucous membrane pemphigoid (where the sign is present) and bullous pemphigoid (where it is absent) – The **Nikolsky sign** is dislodgement of intact superficial epidermis by a shearing force, indicating a plane of cleavage in the skin.

**OMEGA SIGN**

Infantile omega shaped epiglottis seen in Laryngomalacia.

**PANDA SIGN** (bilateral parotid & lacrimal involvement)
The panda sign of sarcoidosis is a gallium-67 citrate scan finding. It is due to bilateral involvement of parotid and lacrimal glands in sarcoidosis, superimposed on the normal uptake in the nasopharyngeal mucosa.

*Also seen in sarcoidosis are *galaxy* and *lamba* signs (Bilateral hilar and right paratracheal lymph nodes are typically involved which can resemble the lambda symbol)*

**Paul Dudley White's Winking Ear Lobe Sign**

Movement of the ear lobe coincident with the pulse suggests tricuspid insufficiency.

**PEMBERTON SIGN**

The Pemberton maneuver is a physical examination tool used to demonstrate the presence of latent pressure in the thoracic inlet. Patient elevate both arms until they touch the sides of the face. A positive Pemberton's sign is marked by the presence of facial congestion and cyanosis, as well as respiratory distress after approximately one minute. Seen in Retrosternal goitre, SVC syndrome, adenopathy, tumor, or fibrosis involving the mediastinum.

**PERPENDICULAR SIGN**

Angle between all semicircular canals is 90 degree to each other and this is called perpendicular sign of semicircular canals.

**PHELPS SIGN**

Loss of crest of bone (as seen in CT-scan) between carotid canal and jugular bulb in Glomus Jugulare.

**PLATYSMA SIGN**

Puckering of platysma and overlying skin like an inverted Japanese fan. A clinical manifestation of infiltration of platysma and subcutaneous tissue by a large neck node.

**RACCOON SIGN**

Periorbital ecchymosis is a sign of basal skull fracture or subgaleal hematoma, a craniotomy that ruptured the meninges, or (rarely) certain cancers.

**RAMROD's SIGN / RAMROD SPINE**

Straightening of spine in retropharyngeal abscess.

**RAT TAIL SIGN / BIRD BEAK SIGN**

Rat tail appearance with irregular mucosal margin on barium swallow, seen in esophageal cancer.
**RISING SUN SIGN**

There is red vascular hue seen behind the intact tympanic membrane. It is seen in glomus tumour, high jugular bulb and aberrant carotid artery in the floor of middle ear.

**SCHWARTZ SIGN**

It is also called flamingo flush sign. It is seen because of increased vascularity in Submucous layer of promontory in active phase of otosclerosis (Otospongiosis).

**SNAIL/SNAKE EYE SIGN (on CT Temporal Bone)**

On coronal CT images, the proximal portion of the tympanic segment and the distal portion of the labyrinthine segment of the facial nerve can be visualized superior to the cochlea, resulting in the appearance of “snake eyes” or “snail eyes”

**SUPERMARKET SYNDROME**

Visual vertigo, space or motion discomfort, visuo vestibular mismatch i.e. severe vertigo on head movement or looking at moving visual scenes seen in acute phase of Menière's and vestibular neuritis. (Should be differentiated from Oscillospia i.e. oscillations or movement of visual surroundings)

**STEEPLE SIGN**

X-ray finding in acute laryngotracheobronchitis (CROUP).

The steeple sign is produced by the presence of edema in the trachea, which results in elevation of the tracheal mucosa and loss of the normal shouldering (lateral convexities) of the air column.

**STANKIEWICK'S SIGN**

Indicate orbital injury (break of lamina papyracea) during FESS. Fat protrude in to nasal cavity on compression of eye ball from outside.

**SUDECK SIGN**

Tenderness and movement of spinous process in the direction of head movement of cervical vertebrae after traumatic dislocation (grisel syndrome).

**TEA POT SIGN**

Is seen in CSF Rhinorrhea. This could be related to the relationship of the sphenoid ostium to the sinus floor. The sphenoid ostium lies at an appreciable distance anterosuperior from the sinus floor. An increase in the CSF rhinorrhhea therefore occurs in a case of sphenoid sinus leak when the patient bends forward as an increasing amount of CSF gains access to the ostium "teapot" sign.

**TEAR DROP SIGN**
Seen in Orbital floor fracture. It is defined as tear drop shaped opacification seen hanging from the roof of the maxillary sinus on water's view.

**THUMB SIGN**

It is a thumb like impression (due to enlarged epiglottis) seen on X-ray lateral view neck in patients with acute epiglottitis. Direct visualization of the epiglottis by laryngoscope, if attempted, reveals a beefy red, edematous epiglottis.

**TINEL SIGN**

Tinel's sign is a way to detect irritated nerves. It is performed by lightly tapping (percussing) over the nerve to elicit a sensation of tingling or "pins and needles" in the distribution of the nerve.

**TRAGUS SIGN**

Pain on compression of tragus, seen in Otitis externa

**TRAIL SIGN**

Marginal perforation with keratin migrating laterally from its edge, suggests squamous epithelium & a cholesteatoma in the middle ear.

**TROUSSEOUS SIGN**

Keep the BP cuff inflated for 5 min, 10mm above SBP, there will be carpopedal spasm in case of tetany.

**UVULA POINTING SIGN**

Seen in rhinoscleroma when scleroma involve nasopharynx, uvula point towards roof of nasopharynx.

**WOODS SIGN**

Palpable jugulodigastric lymph nodes

**TROTTER'S SIGN**

Loss of laryngeal crepitus

**EYE SIGNS OF GRAVE’s DISEASE**

1. **ANROTH’s SIGN**
   
   Chemosis, edema of conjunctiva and lids.

2. **BECKER SIGN**
   
   On fundoscopy – Abnormal retinal pulsations.
3. **DALRYMPLE'S SIGN**
   Wide palpebral aperture.

4. **VON GRAEFE'S SIGN**
   Lid lag.

5. **STELLWAG'S SIGN**
   Infrequent blinking.

6. **JOFFROY'S SIGN**
   Absence of forehead wrinkling on upward gaze.

7. **JELLINGER’S SIGN**
   Pigmentation of skin of eyelids.

8. **MOBIUS' SIGN**
   Inability to keep the eyeballs converged.

9. **BALLET’S SIGN**
   Limitation of movement of the eyeballs, especially upward.

10. **ROSENBACH’S SIGN**
    Fine tremor of the eye lid when the eyes are gently closed.

11. **NAFFZIGGER’S SIGN**
    Tangential view (from patients back) shows protruding eyeballs.

12. **GIFFORD SIGN**
    Difficulty in passively everting upper eye lid.

13. **VIGOROUX SIGN**
    Eyelid fullness.

14. **GROOVE SIGN**
    Resistance to pulling down the retracted upper lid.

15. **GRIFFITH SIGN**
    Lagging of lower lid on looking upwards.

16. **BOSTON SIGN**
    Jerking or lagging lid on elevation of eyelid.

17. **ENROTH SIGN**
    Edema of the eyelids especially upper lid near the supraorbital margins.

18. **WIDER SIGN**
    Slight twitch of eyeball when it changes its movements from adduction to abduction.

19. **GRAVE SIGN**
    Failure to close the eyes fully in sleep.

**OTHERS**

**PLUMMERS NAILS** – retraction of nails from its bed

**PRETIBIAL MYXEDEMA** – thyroid dermopathy is a term used to describe localized lesions of the skin as a result of the deposition of hyaluronic acid in the dermis and subcutis.

**THE ICE CREAM CONE SIGN MAY REFER TO:**

- The appearance of the malleus head and the incus body on axial CT scan: failure of this normal configuration suggests incudomalleolar disarticulation. Ball of the ice cream is formed by head of
malleus and cone is formed by body of incus. Space between ice cream cone and scutum is called as "Prussack’s space".

- A medium sized (1.5 to 3 cm) Acoustic Schwannoma: typical appearance, with the intracanalicular component representing "the cone" and the Cerebellopontine angle (CPA) component representing the "ice cream".

**TULLIO’s PHENOMENON**

- Sudden vertigo, nausea or nystagmus on exposure to loud noises is known as tulliot phenomenon.
- Seen in cases of SCC fistula caused by either Barotrauma, syphilis, lymes disease or as a result of fenestration surgery, superior semicircular canal dehiscence.

**Bechterew Effect**

- If second side labyrinthine destruction is done when uVD (unilateral Vestibular Differentiation) signs and symptoms like I/L head tilt, I/L conjugate binocular eye torsion, horizontal torsional nystagmus with slow component to affected side, Permanent loss of VOR i.e. vestibuloocular reflex, hypotropia due to skew deviation, nausea, vomiting) are at the peak then symptoms subside.

**Fukuda or Unterberger Test**

- Patients of VESTIBULAR NEURITIS when asked to march on a spot with eyes closed tend to turn to the affected side.