MRCHS158

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CEREBRAL VENOUS SINUS THROMBOSIS AND HEARING LOSS

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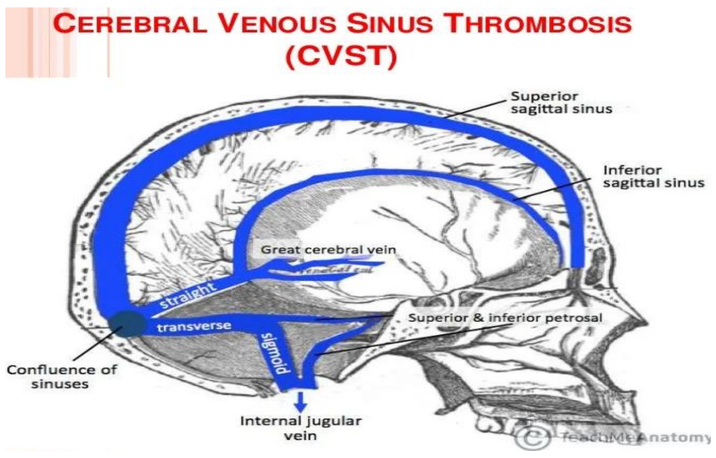
INTRODUCTION:

- Cerebral Venous Sinus Thrombosis (CVST)
- Blood clot forms in the brain's venous sinuses
- Prevents blood from draining
- Pressure builds up in the blood vessels and blood cells may break and leak blood into the brain tissues, forming a haemorrhage



Clinical Features:

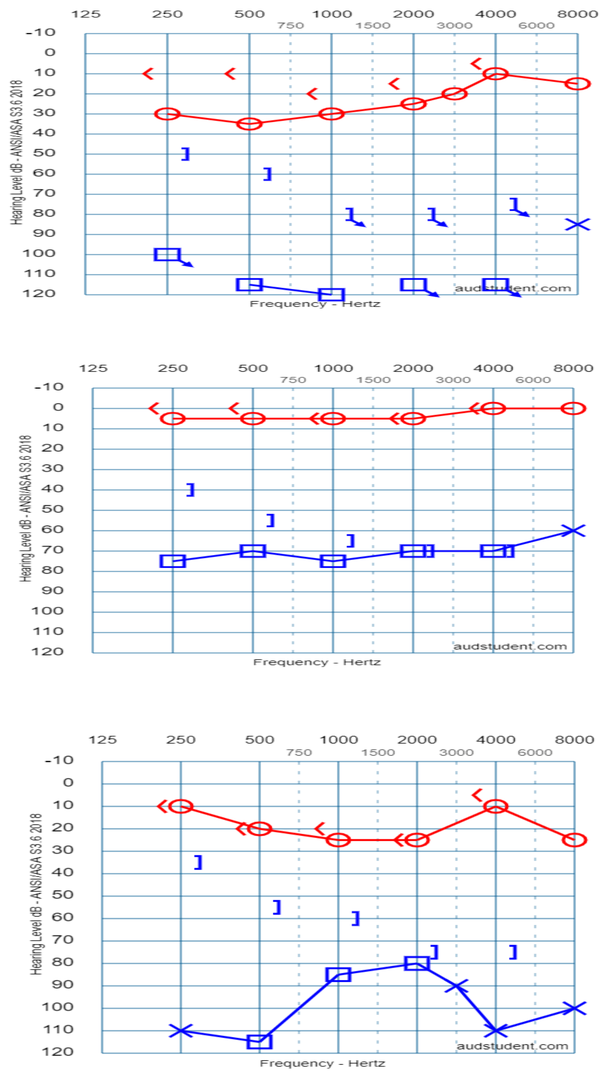
- Headache (present in 90% of cases)
- Seizure
- Nausea, vomiting
- Weakness or impaired control
  - one/both side of the body
- Sudden SNHL
- Difficulty speaking
- Difficulty understanding language
- Blurred or double vision; brief periods (lasting seconds) in which vision becomes grey or black
- Decreased level of consciousness
- Coma

AIM: **To understand the hearing loss and its pathophysiology in CVST**

CASE REPORT:

- 31 year old, Male
- C/o – Sudden hearing loss (L), tinnitus, persistent headache, giddiness and imbalance
- **MRI -** Cerebral Sinus Venous Thrombosis
- **Pure Tone Audiometry (PTA)**
  - Left **-** Profound hearing loss
  - Right – Normal hearing
- **ENT:** BL – TM intact
- Positional test **-** no dizziness/ nystagmus
- Head Impulse Test and Romberg's (negative)
- Management
  - Intratympanic (IT) steroid (3dose)
  - Oral steroid (T. Coecortt)

•AUDIOLOGICAL FINDINGS:



•**NEUROLOGY:**
Antiplatelets- Ecosprin

DISCUSSION:

Prevalence:

- Rare
- In a large series of 62 patients with isolated lateral sinus thrombosis, hearing loss was found in 2 patients (3%)

(Gattringer et al., 2012)

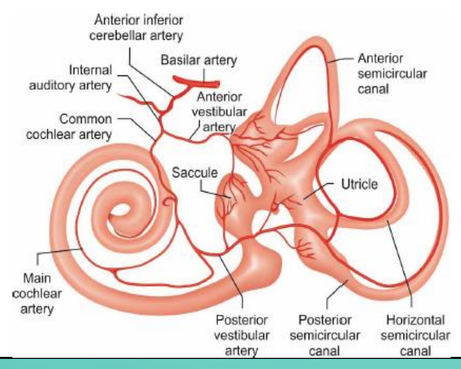
Importance of Non- Audiological Evaluation-

CT- It is a valuable diagnostic tool. It is able to detect some conditions that conventional X-rays cannot because it shows a 3D view of the section of the body being studied.

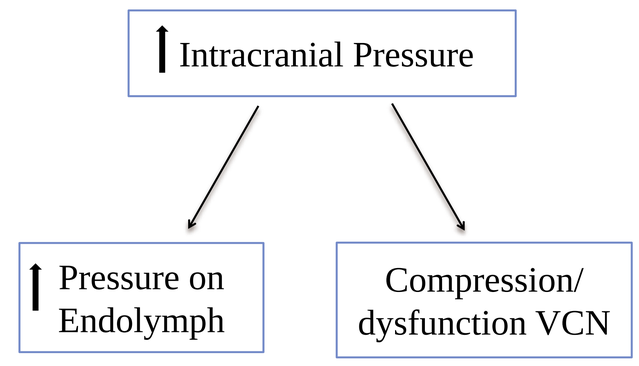
MRI- MRI provides better soft tissue contrast and can differentiate better between fat, water, muscle, and other soft tissue. It is useful in diagnosing a wide variety of diseases and conditions.

CVST and Hearing Loss Pathophysiology;

1) CV → CV veins + LV → Petrosal sinus/ transverse sinus → Pressure IE → Anoxia & impede CF → SSHL



2)



(Gattringer et al., 2012)

Management-

-Team approach [ENT, Neurologist & Audiologist]

- ENT → Steroids
  - IT
  - Oral

} SSHL

Preventive mechanism → HL → Permanent

- Audiologist
- Diagnosis & differential diagnosis
- Test battery → Cochlear/ Retrocochlear

PTA + ABR + OAE + TYMP → CM

- Hearing Aid
- Conventional [AC] → Benefit
- Special HA → CROS → Comm needs
- Monitoring/ Counselling
- Audiogram

(Gattringer et al., 2012)

Conclusion:

- CVST – rare condition
- Causes SSHL [Cochlear/ Retrocochlear]
- Audiologist plays a crucial role in diagnosis & management

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