

MENIERE'S DISEASE

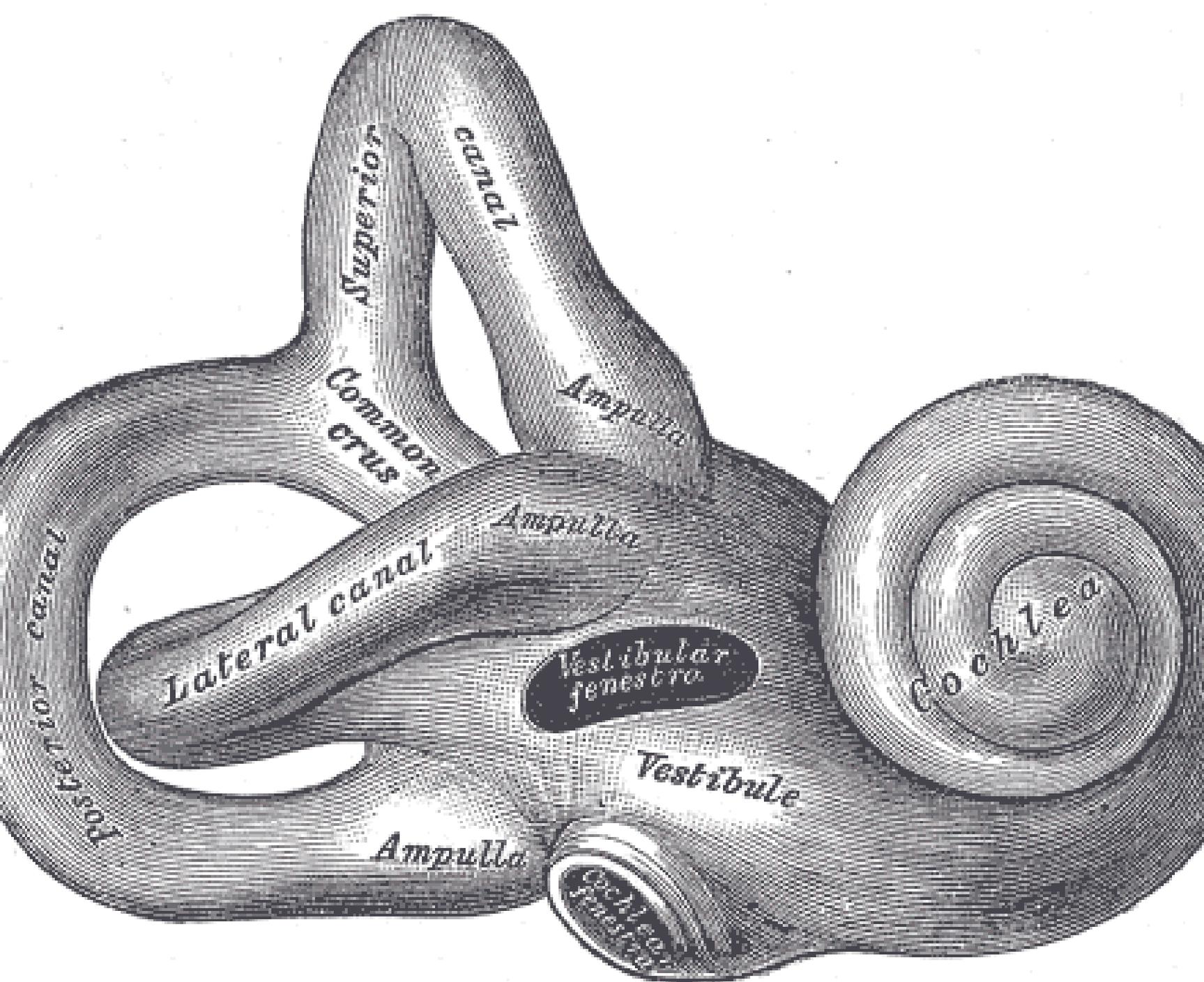
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VESTIBULAR SYSTEM OVERVIEW

- The vestibular system is both sensory and motor
- Provides sensory input regarding movement and position of the head
- Plays a role in controlling the position of the body's center of mass





PERIPHERAL SENSORY APPARATUS

- 3 Semicircular canals
- Ampulla
- Cupula
- Lymphatic fluid
- Otoconia



MENIERE'S DISEASE DEFINITION

- Meniere's disease is a disorder of the inner ear that causes spontaneous episodes of vertigo along with fluctuating hearing loss, ringing in the ear (tinnitus), and sometimes a feeling of fullness or pressure in the ear.
- The cause of Meniere's disease isn't well understood. It appears to be the result of the abnormal volume or composition of fluid in the inner ear.



POSSIBLE CAUSATIVE FACTORS:

- Improper fluid drainage, perhaps because of a blockage or anatomic abnormality
- Abnormal immune response
- Allergies
- Viral infection
- Genetic predisposition
- Head trauma
- Migraines



DEMOGRAPHICS

- Females slightly more than males
- 40 – 60 years of age
- Strong positive family history
- People of European decent
- Yearly incidence of 4.3 for every 100,000 population



SYMPTOMS

- Recurring episodes of vertigo
- Hearing loss
- Tinnitus (ringing in the ears)
- Fullness sensation in the ears



DIAGNOSIS

- The American Academy of Otolaryngology-Head and Neck Surgery criteria for diagnosis of Meniere's disease (1995)
- 1 Recurrent spontaneous and episodic vertigo. A definitive spell of vertigo lasting at least 20 min, often prostrating, accompanied by disequilibrium that can last several days; usually nausea or vomiting, or both; no loss of consciousness. Horizontal rotatory nystagmus is always present
- 2 Hearing loss (not necessarily fluctuating)
- 3 Either aural fullness or tinnitus, or both

Certain Meniere's disease

- Definite disease with histopathological confirmation

Definite Meniere's disease

- Two or more definitive episodes of vertigo with hearing loss, plus tinnitus, aural fullness, or both

Probable Meniere's disease

- Only one definitive episode of vertigo and the other symptoms and signs

Possible Meniere's disease

- Definitive vertigo with no associated hearing loss or hearing loss with non-definitive disequilibrium



MEDICAL MANAGEMENT

- Vertigo Medications:

Motion sickness and anti-nausea medications – meclizine, diazepam, etc.

- Diuretics
- Middle Ear Injections – antibiotics or steroids
- Surgery – multiple surgeries to remove different portions of the vestibular system
- Vestibular Rehabilitation



PHYSICAL THERAPIST'S ROLE

- Canalith Repositioning Exercises
- Vestibular Adaptation Exercises
- Patient Education



REFERENCES

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