Dizziness/Vertigo - Meniere's Disease

History

Meniere's is a relatively uncommon condition, but important because the attacks may be fairly disabling. Eventually permanent hearing loss may develop in Meniere's patients. The cause may be an increase in pressure in the fluid of the inner ear - "endolymphatic hydrops". It is characterized by recurrent episodes of vertigo, a sensation of pressure in the ear, fluctuating hearing loss, and a rather low pitched tinnitus.

Clinical course: Attacks of vertigo in Meniere's usually last a few hours to all day. The symptoms then resolve to recur another day, weeks, or months later. Hearing acuity fluctuates in conjunction with the vertigo attacks.

Exacerbating factors: There are no clear triggers for an attack of Meniere's although high salt intake has been postulated to possibly play a role in triggering attacks in some patients. Once the attack begins, moving will exacerbate the vertigo, nausea, and vomiting. Meniere's may be caused or aggravated by metabolic or allergic disorders. Special diet or drug therapy may be indicated to control these problems.

Associated symptoms: Pressure in the affected ear often precedes the vertigo. Low pitched tinnitus (sometimes described as a rumble) and a sensation of muffled hearing then develops (as does the vertigo). These associated features are key to making a diagnosis of Meniere's. As with most cases of vertigo, nausea and vomiting may be prominent during the vertigo attack.

Patients at risk: Meniere's often runs in families.

Exam

Decreased hearing acuity on the affected side and rotatory nystagmus toward the affected side. The ear appears normal. Sensorineural hearing loss - Weber lateralizes to unaffected ear.

Diagnosis

(See Dizziness/Vertigo Algorithm)
Diagnosis is usually based on the characteristic history of recurrent vertigo attacks lasting hours accompanied by tinnitus, muffled hearing, and a feeling of pressure in the ear. The diagnosis cannot be made after the first episode and must be confirmed by serial audiograms showing fluctuating low frequency sensorineural hearing loss.

Differential diagnosis:
Vertigo lasting hours may be infrequently seen with **ischemia** (usually much briefer). Vertigo associated with hearing loss may also be seen with acoustic neuroma. Vertigo associated with migraine-type headaches are seen with Vestibular Migraines

Tell the Patient

This is a chronic condition. The time between episodes is widely variable. After many years the vertigo may burn itself out. An associated hearing loss may result. In a number of cases, the other ear may become involved.

Treatment

Restrict salt intake to <1500 mg/day and encourage increased water intake.

Symptomatic relief may be obtained with antiemetics and antivertigo medications such as Phenergan 25mg qid or Antivert 25 mg TID.

For severe attacks, Prednisone 5mg #79: 30mg bid x 4 days then taper over 6 days. Some patients may benefit from a maintenance of a low dose of Valium 2mg tid-qid prn. Diuretics (such as MAXIDE tab po qd) may reduce the frequency of attacks.

Vasoconstricting substances may impede inner ear circulation and should be avoided Such substances are caffeine (coffee) and nicotine (cigarettes).

A variety of surgical techniques, such as labyrinthine ablation and labyrinthine neurectomy, have been used for severe and resistant cases. We may use gentamycin injections which selectively destroy balance function. This treatment is contraindicated for patient with Meniere's in their only hearing ear or with Meniere's disease in both ears.

Permanent hearing loss may develop over time.
For severe cases, Prednisone 5mg #79: 30mg bid x 4 days then taper over 6 days. Some patients may benefit from a maintenance of a low dose of Valium 2mg tid-qid prn.

For Vestibular Migraines, treat the migraines with nortriptyline, topamax, etc

When to Refer

Refer for audiogram to document sensorineural hearing loss.
Refer to HNS for severe, persistent vertigo unresponsive to treatment.

For persistent Vestibular Migraine, refer to Neurology

Last Reviewed: 3/2011