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Meniere's Disease

Meniere's disease or endolymphatic hydrops was initially described by Prospere Meniere in the mid 1800s and since then literally thousands of reports and articles have been written about this problem. This is a significant cause of vertigo and imbalance with severe distress as a result in these patients. It is also one of the most commonly over diagnosed disease processes in patients presenting with imbalance disorders. It is felt to be a manifestation of abnormal inner ear physiology with fluid and electrolyte imbalance. This theory forms the basis for much of the treatment of this problem.

Meniere's syndrome presents classically with episodic vertigo, hearing loss, ear pressure, and tinnitus (ringing). The usual presentation includes a unilateral hearing loss which fluctuates and over time tends to progress and become more stable as the disease continues. There may at times be a warning of the episodes and this can be helpful in regard to the underlying cause. The attacks or episodes can last hours at a time. With clearing, the patient will return to a normal state of balance between episodes at least when the disease starts. There is no absolute sign or symptom which alone solidifies the diagnosis especially with the first episode of vertigo. Some patients can provide clues to causes such as allergies, migraine headaches, diabetes, or dietary induced episodes. Uncommonly trauma may result in endolymphatic hydrops. Other neurologic symptoms should be rare if present at all in these patients.

The physical examination will most often be benign except during the actual attack itself. At that time the patient will be quite distressed and want to remain still in an

attempt to lessen the severity of the vertigo. There will be rhythmic eye movement called nystagmus, though the motion may not be readily detected by the observer.

Most patients with this disease will be initially seen in the emergency room. Important other causes of vertigo such as stroke, heart problems, or metabolic disturbances need to be ruled out. The patient presenting to the otologist will have varied degrees of hearing loss and a normal ear exam otherwise. Neural examination between episodes will usually be normal or near normal though subtle signs of vestibular dysfunction can occur.

Laboratory testing is an important part of the evaluation. Hearing tests both basic and advanced are a necessary part of the complete battery. An evaluation of the vestibular system is completed with computerized electronystagmography (ENG). Other computer testing of the ear may also be ordered depending upon the patient's signs and symptoms. Blood tests and scans are quite often needed to eliminate or confirm this and other diagnoses.

Once the diagnosis of Meniere's is made, treatment is focused on the symptoms as well as the abnormal physiology. At this time there is no cure for this disease and long term treatment remains individualized to the circumstances and likely cause of the disease. For the acute vertiginous episodes vestibular suppression medications are used. These are most commonly either meclizine or antivert, but valium and even suppositories such as compazine may be needed. There is unfortunately no miracle medication or procedure to alleviate the acute episode itself. Rest, medication and time are the acute treatment staples. Occasionally there may be need for time in the hospital especially as noted before in the first episode. Most patients prefer thereafter to remain at home for

their treatment. Longer term treatments are aimed at preventing or severely limiting the number and severity of episodes. The mainstay of treatment aims at the dietary changes. The "**NO CATS" diet** consists of elimination of CAFFEINE, Alcohol, Tobacco, and limitation of Salt intake. Salt should be held as close to 2000 mg. per day. Dietary changes especially caffeine are vitally important and can often get the patient back into a stable life. **Diuretics** are used to further aid the physiologic activity of the ear and together with diet stabilize 70-75% of patients if fully implemented. At times allergies and /or glucose control are important in therapy. When there are indications of migraine equivalent signs and symptoms these patients can respond to migraine therapy and find great relief. An anti-migraine diet is an important part of this strategy and again must be followed closely for best effect. At times other methods may be added in particular cases.

When patients fail the above therapeutic interventions, more aggressive treatment may be in order. These have advantages but each generally also carries higher risk. Chemical manipulations of the inner ear have gained increased acceptance in the last few years. These include the antibiotic gentamycin and the use of steroids. These are administered usually through the middle ear, though they have also been used systemically. Alternatively, several surgical procedures are effective in treating patients with Meniere's. Among these are procedures designed to maintain hearing. **Endolymphatic sac procedures** and vestibular nerve section are utilized for that purpose. When hearing preservation is less of a concern, destruction of the vestibular input by means of a labyrinthectomy is contemplated. The indications and risks of each of the above treatments are beyond the purpose of this discussion. Each will be discussed as appropriate with patients in the office in detail prior to decision about treatment

choice. Recently an alternative treatment has gained some favor. This involves the manipulation of pressure through the middle ear into the inner ear. This is accomplished with a device called **Meniett's**. A tube is placed into the tympanic membrane (eardrum),and the device puts pressure through the resulting hole. This is done daily at home and shows significant promise in many patients. At present insurance payment is not forthcoming for the device, but, hopefully, the companies will soon become more accepting of this device.

This discussion is not meant to be a complete rendition of Meniere's disease/syndrome, as each patient requires an individual evaluation and no one individual fits all or most of the parts of the above discussion. Your individual case will need to be properly evaluated before a proper diagnosis and treatment can be selected. Symptoms and signs that appear clear to the patient are sometimes not as they appear when studied in an unbiased physician and confirmed by appropriate testing. That is why a web site such as this can only give guidelines for the inquisitive mind to contemplate.