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Meniere's Update #2 Diet and Diuretics

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Diet and Diuretics

Meniere's disease is believed to be the result of too much inner ear fluid in the affected ear. Some practitioners believe that overall fluid retention in the body is connected to fluid retention in the inner ear. Diet and diuretics are intended to reduce overall fluid retention with the goal of reducing volume of inner ear fluid (endolymph). The 1985 Committee on Equilibrium made an expert panel recommendation to prescribe a low salt diet and/or diuretics for Meniere's patients. The effectiveness of this recommendation has been studied with less than impressive results. If you want to review my original posts on this subject, click here and here.

Salt Restriction

There has been one notable study regarding salt consumption and Meniere's disease since my initial 2012 post. Miyashita and colleagues published a study this year (2016) where they monitored sodium levels in Meniere's patients over two years. They reported that those with the lowest sodium levels had modest improvement in hearing and vertigo complaints compared to patients with higher sodium levels. This study was quite small (only 13 patients total). The authors proposed the theory that reduced sodium levels leads to increases in plasma aldesterone levels, which they believe may lead to increased endolymph absorption. Per WebMD "Aldosterone helps regulate sodium and potassium levels in the body. This helps control blood pressure and the balance of fluids and electrolytes in the blood."

Diuretics

Earlier this year (2016) researchers from Duke University performed an extensive literature review of articles evaluating the efficacy of diuretics in treating Meniere's symptoms. In the introduction, they state *"Despite the widespread use of diuretics for this condition, limited evidence for its efficacy has been demonstrated."* In the discussion section, they state, *"If clinicians observe strict adherence to the strength of the evidence as the basis for which clinical decisions are made, the efficacy of diuretics in the treatment of MD is speculative at best. However, in situations where a large body of low level evidence exists with a lack of affirmative high level evidence, we should not preclude the use of such therapies."* Finally, they conclude, *"Multiple low evidence level studies report that oral diuretic therapy may be beneficial in the medical management of MD…. "These conclusions are mitigated by multiple limitations, including the natural history of MD, study design, and the possibility of publication bias."*

Is There Any Potential Harm?

At least one study by Pirodda and colleagues (2011) suggests that lowering salt intake can result in *"abrupt lowering of blood pressure: a subsequent exaggerated vasomotor response including local ischemia could be responsible for more or less permanent damage."* I am not aware of any clinical

studies to support this theory.
To wrap up this post, I include a paragraph from a recent 2015 review by Syed and colleagues titled “Ménière’s Syndrome or Disease: Time Trends in Management and Quality of Evidence Over the Last Two Decades". Please click on the link for the full article with references.

Medical Treatment

For MS/D (Meniere’s syndrome/disease), medical treatment typically encompasses conservative treatment (low-salt diet and lifestyle modification) and or diuretics and betahistine (outside the United States). It has been suggested that a high-salt diet can influence the osmotic gradients in the inner ear, resulting in endolymphatic hydrops; however, investigators have challenged the simple notion that salt restriction affects the fluid dynamics of the ear in ways that would significantly influence the degree of hydrops. We found one study (type III evidence) to support the role of salt restriction and diet modification in reducing the frequency or severity of symptoms from MS/D in the last 20 years. The Luxford et al. study investigated patients’ willingness and ability to modify their diets, including ease of use of the low-salt and caffeine-free diets, and Nutrition education by referral to a registered dietician suggests improved outcomes in the medical treatment of MS/D. They concluded that nutrition education by referral to a registered dietician may improve outcomes in the medical treatment of Ménière’s disease. However, they did not investigate the pathophysiologic effects of the dietary changes.

Diuretics have been in use in the treatment for Ménière’s for several decades and are thought to reduce the degree of endolymphatic hydrops by reducing the extracellular fluids in the body. A recent Cochrane review found “there is no good evidence for or against the use of diuretics in MS/D.” We found no studies reporting the specific use of diuretics in the treatment of MS/D in the last two decades.

Summary

Although diet and diuretics continue to be the mainstay of treatment for early or suspected Meniere’s disease, it appears the general sentiment is that it might help and it will do no harm. It also allows some time to pass, so both the patient and clinician get a better picture of the disease before more aggressive treatments are considered. Nothing really dramatic has changed on this topic since my original post in 2012.