

# **XXXI Bány Society MEETING**



MADRID, MAY 9<sup>th</sup>-11<sup>th</sup> 2022

**CP02**



## CONTROVERSY PANEL FORM

- MODERATOR'S NAME and SURNAME: Michael Strupp, MD
- MODERATOR'S E-MAIL: Michael.Strupp@med.uni-muenchen.de
- ACADEMIC/HOSPITAL AFFILIATION: Dept. of Neurology and German Center for Vertigo and Balance, Ludwig Maximilians University, Munich, Germany
- SESSION TITLE: How to treat Menière's disease: still an area of uncertainty and controversy

### 2 SPEAKERS PER CONTROVERSY PANEL:

#### - SPEAKER 1

- NAME AND SURNAME: Michael Strupp, MD. FRCP, FAAN  
 TOPIC DESCRIPTIVE TITLE: Conservative treatment of Menière's disease: past, present and future  
 ACADEMIC / HOSPITAL AFFILIATION: Dept. of Neurology and German Center for Vertigo and Balance, Ludwig Maximilians University, Munich, Germany

#### - SPEAKER 2

- NAME AND SURNAME: Issam Saliba, MD, FRCSC  
 TOPIC DESCRIPTIVE TITLE: Endolymphatic duct blocage: a novel treatment for refractory Ménière's disease  
 ACADEMIC / HOSPITAL AFFILIATION: Department of Otolaryngology, Head & Neck Surgery - Otology & Neurotology. Univesrity of Montreal, Montreal - Quebec, Canada

- **A BRIEF (<300 WORDS) DESCRIPTION OF THE THEME AND TARGET AUDIENCE:**

In this controversery panel the current status of treatment options for preventive treatment of Menière's disease will be discussed, in particular the efficacy of non-invasive versus semi-invasive and invasive measures and the controversy between these these approaches.

Since Menière's disease is often a chronic remitting disease, a preventive treatment is highly needed in most patients. However, although various therapeutic approaches have been proposed, there is so far insufficient evidence of the effectiveness of the following measures: low-salt, -caffeine, -alcohol diet (Cochrane review (CR)), diuretics (CR), pulsed low-pressure delivery (RCT), endolymphatic sac surgery (CR), and betahistine in dosages of 48 mg/d and 144 mg/d (RCT). There is also far no really convincing evidence for the efficacy of intratympanic steroids. Intratympanic gentamycine is effective but impairs vestibular function and may impair hearing. One option for preventive treatment are high dosages of betahistine or the combination of betahistine with Selegiline which leads to 100fold! higher serumr concentrations (phase I trial in healty volunteers, unpublished).

On the other hand labyrinthectomy/neurectomy are invasive and cause vestibular loss. It is important to note that the latter three procedures should particularly not be applied in bilateral MD, which affects up to 45% of all patients in the long-term. In this Controversy Panel alternative invasive treatment option will be presented.

At the end methodological aspects for the design of future RCTs which all have to be placebo-controlled! because of a placebo-effect of up to 70% in Meniere's disease will be presented.

- A 150-WORD **ABSTRACT FROM EACH OF THE SPEAKERS:**

#### ABSTRACT 1

Endolymphatic sac surgery has been a favorable option for patients as it is a hearing preservation surgery and has a low surgical morbidity. Its effectiveness has been debated and published results are highly variable. We have, over the past few years, established a novel surgical technique for the treatment of Meniere's disease: The Endolymphatic Duct Blockage (EDB); by comparing EDB to Endolymphatic Sac Decompression (ESD), 96.5% of the EDB group had achieved : a complete control of vertigo spells against 37.5% of the ESD group ( $p=0.00$ ; a better control of tinnitus and aural fullness with EDB ( $p=0.021$  and  $p=0.014$  respectively). There was no statistically significant difference in hearing level preoperatively ( $p= 0.976$ ) and 24 months postoperatively ( $p=0.287$ ) between the two groups. Hearing level was preserved in each group.

Today, out of 300 cases operated through the last 10 years, we have at least more than 5 years follow-up for more than 150 patients. Results still stable.

#### ABSTRACT 2

Since Menière's disease is often a relapsing disease, a preventive treatment is highly needed in most patients. However, although various therapeutic approaches have been proposed (with 4550 papers in PubMed with the search terms "Menière therapy"), there is so far insufficient evidence of the effectiveness of the following measures: low-salt, -caffeine, -alcohol diet (Cochrane review (CR) (1)), diuretics (CR(2)(2), pulsed low-pressure delivery (RCT(3)), endolymphatic sac surgery (CR (4)), and betahistine in dosages of 48 mg/d and 144 mg/d (RCT(5) and reviews (6, 7)). The latter RCT also showed a strong placebo-effect of 70%. One new option is the combination of betahistine with selegiline which leads to 100fold! Higher betahistine serum concentrations as a monotherapy as we just showed in a phase I trial in 15 healthy adults (Strupp et al, unpublished).

There is so far no really convincing evidence for the efficacy of intratympanic steroids (state-of-the-art placebo-controlled RCT, press-release). Intratympanic gentamicine is evidently effective but impairs vestibular function and may impair hearing.

Methodologically it is not sufficient to compare various treatments with each other (like intratympanic steroids with gentamicine) as long as we do not have a gold-standard for treatment. We need placebo-controlled RCTs with clinically meaningful endpoints, like "days with vertigo".

#### Reference List

- (1) Hussain K, Murdin L, Schilder AG. Restriction of salt, caffeine and alcohol intake for the treatment of Meniere's disease or syndrome. *Cochrane Database Syst Rev* 2018 Dec 31;12:CD012173.
- (2) Thirlwall AS, Kundu S. Diuretics for Meniere's disease or syndrome. *Cochrane Database Syst Rev* 2006;3:CD003599.
- (3) Russo FY, Nguyen Y, De SD, et al. Meniett device in meniere disease: Randomized, double-blind, placebo-controlled multicenter trial. *Laryngoscope* 2017 Feb;127:470-475.
- (4) Pullens B, Verschuur HP, van Benthem PP. Surgery for Meniere's disease. *Cochrane Database Syst Rev* 2013;2:CD005395.
- (5) Adrion C, Fischer CS, Wagner J, Gurkov R, Mansmann U, Strupp M. Efficacy and safety of betahistine treatment in patients with Meniere's disease: primary results of a long term, multicentre, double blind, randomised, placebo controlled, dose defining trial (BEMED trial). *BMJ* 2016;352:h6816.
- (6) Holmes S, Lalwani AK, Mankekar G. Is Betahistine Effective in the Treatment of Meniere's Disease? *Laryngoscope* 2021 Dec;131:2639-2640.
- (7) Van EB, Zaag-Loonen H, Brintjes T, van Benthem PP. Betahistine in Meniere's Disease or Syndrome: A Systematic Review. *Audiol Neurootol* 2021 Jul 7;1-33.