1. This document is created for accessibility and is intended to be a supplemental resource. If you would like to print a hard copy of this document, please follow the general instructions below to print multiple slides on a single page or in black and white.
2. This handout is for reference only. Non-essential images have been removed for your convenience. Any links included in the handout are current at the time of the live webinar, but are subject to change and may not be current at a later date.
3. Copyright: Images used in this course are used in compliance with copyright laws and where required, permission has been secured to use the images in this course. All use of these images outside of this course may be in violation of copyright laws and is strictly prohibited.
4. Social Workers: For additional information regarding standards and indicators for cultural competence, please review the NASW resource: Standards and Indicators for Cultural Competence in Social Work Practice
5. Need Help? Select the "Help" option in the member dashboard to access FAQs or contact us.

How to print Handouts

On a Mac

- Open PDF in Preview
- Click File
- Click Print
- Click dropdown menu on the right "preview"
- Click layout
- Choose # of pages per sheet from dropdown menu
- Checkmark Black & White if wanted.

On a PC

- Open PDF
- Click Print
- Choose # of pages per sheet from dropdown menu
- Choose Black and White from "Color" dropdown

No part of the materials available through the continued.com site may be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form, in whole or in part, without prior written consent of continued.com, LLC. Any other reproduction in any form without such written permission is prohibited. All materials contained on this site are protected by United States copyright law and may not be reproduced, distributed, transmitted, displayed, published or broadcast without the prior written permission of continued.com, LLC. Users must not access or use for any commercial purposes any part of the site or any services or materials available through the site.


REGIA · ACADEMIA · CAROLINA

Benefits/Risks

- The applicability and accuracy of the course content may vary by the clinical, geographical, and cultural context; you should evaluate the course accordingly.
- As healthcare is rapidly evolving, new findings may change the validity of the information presented in this course. Providers should always consult the latest research and guidelines from professional associations.
- The interventions discussed in this course may be limited in generalizability, requiring practitioners to consider specific individual and population factors.
- The course may not cover all possible risk factors, diagnostic methods, or treatment options, and complex cases may require additional considerations.
- Healthcare providers should apply cultural competence and sensitivity to ensure effective and respectful care based on their patients' diverse needs.
- Providers should always evaluate the limitations of diagnostic and screening tools, considering their potential for false results as well as any ethical implications.
- It is the responsibility of course participants to critically evaluate the evidence from multiple sources to guide professional practice.

LUND UNIVERSITY

Learning Outcomes

- After this course, participants will be able to identify the diagnostic criteria for both definite and probable Ménière's disease according to the 2015 ICVD guidelines.
- After this course, participants will be able to differentiate between Ménière's disease and vestibular migraine using specific audiological and vestibular test findings, including vHIT and caloric responses.
- After this course, participants will be able to discuss the effectiveness and clinical indications of various treatment options for Ménière's disease, including grommet insertion, intratympanic therapies, and surgical interventions.




REGIA · ACADEMIA · CAROLINA

Prosper Menière 1799 - 1862



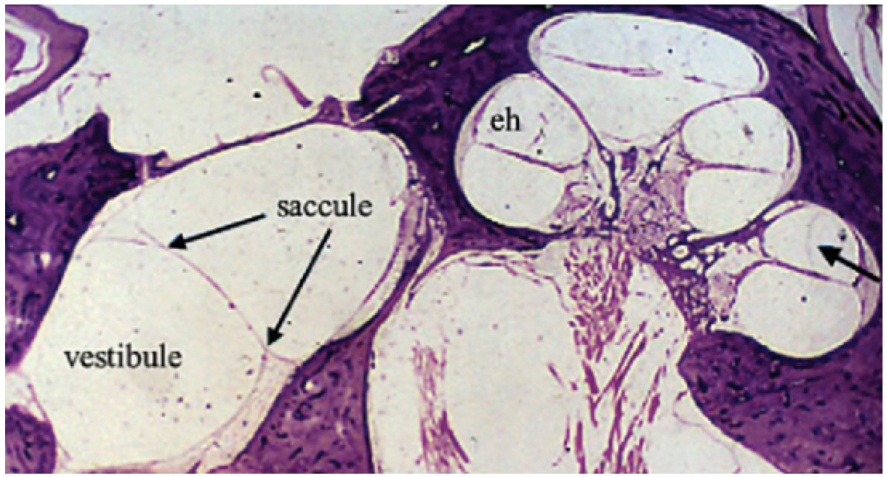
Jan 3, 1861 *"Sur une forme de surdité grave dépendant d'une lesion de l'oreille interne"*

- Director of the Imperial Instute for Deaf-Mute, Paris 1838-1862
- Vertigo – "apoplectiform cerebral congestion" (since B.C)
- *Bulletin de l'Académie Impériale de Médecine* January 31, 1861
- Vertigo due to disorders of the ear!
- "Menières disease"

LUND UNIVERSITY

Endolymphatic hydrops 1938

Hallpike & Caims *Proc R Soc Med* 1938
Yamakawa *J Otolaryngol Soc Jpn* 1938



- Portmann G. Endolymphatic sac surgery *Proc R Soc Med* **1927!**
- *”Here´s to the endolymphatic sac! The only rudimentary organ that makes money*!!”
  american otosurgeon
- Thomsen J et al *Acta Otolaryngol* 1998
  mastoidectomy/grommets vs. shunts N.S.
- *Cochrane Database Syst Rev* 2013
  ”..insufficent evidence of sac surgery.”

LUND UNIVERSITY

What is Ménière´s disease?



Definite Ménière´s disease (ICVD 2015 criteria)

- 2 or more spontaneous vertigo attacks 20 minutes – 12 hours
- Documented low - mid frequency sensorineural hearing loss
- Fluctuating symptoms (hearing, tinnitus, fullness) in the affected ear
- Not better explained by another vestibular diagnosis

LUND UNIVERSITY

What is Ménière´s disease?

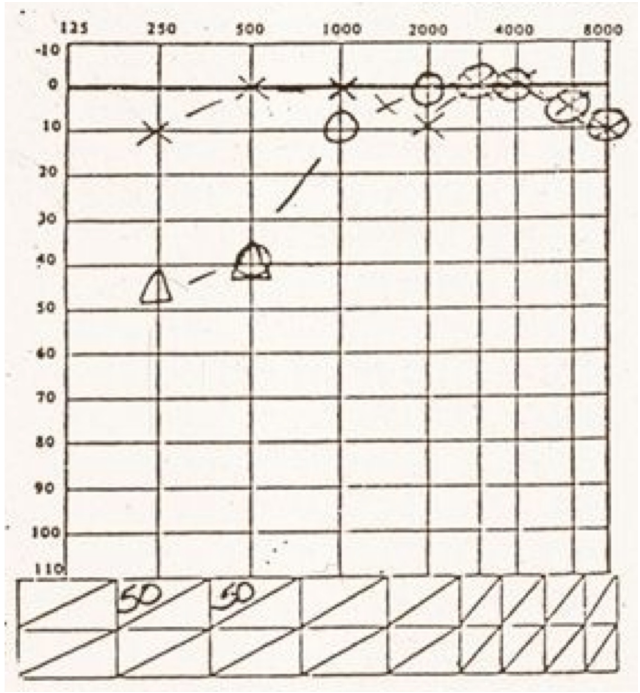


Probable Ménière´s disease (ICVD 2015 criteria)

- 2 or more spontaneous vertigo attacks 20 minutes – 24 hours
- Fluctuating symptoms (hearing, tinnitus, fullness) in one ear
- Not better explained by another vestibular diagnosis

LUND UNIVERSITY

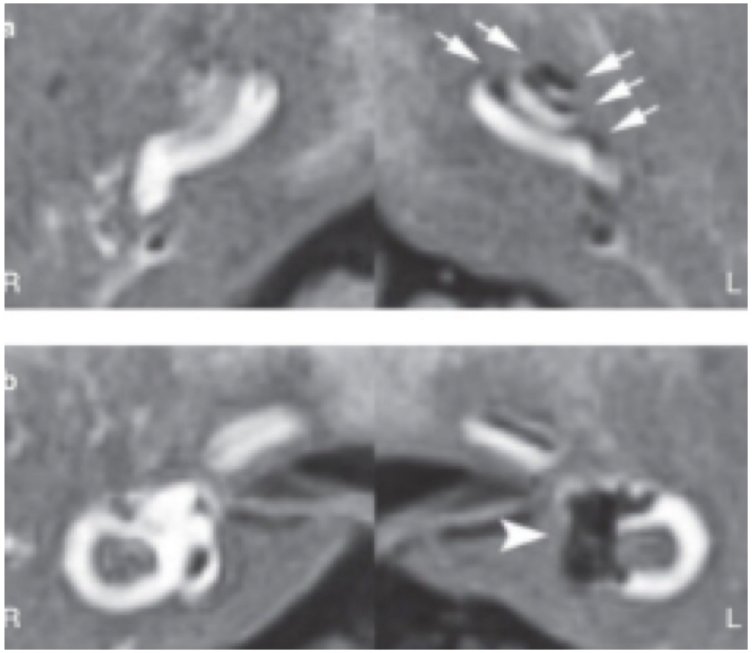
How do I diagnose Ménière´s disease?



- Use the criteria!
- Audiometry when symptomatic! (or smartphone application at home)
- When in doubt (Meniere vs vestibular migraine): vHIT + calorics. Normal vHIT + significant canal paresis on symptomatic ear favors Mb Meniere!
- MRI (T2 posterior fossa/temporal bone)
- (Sometimes we have to make the diagnosis even when criteria are not fulfilled; ”delayed endolymphatic hydrops”)
- (Hydrops-MRI! - resources!)

LUND UNIVERSITY

Ménière´s disease is ”associated” with endolymphatic hydrops



- All patients with ”definite” Ménière´s disease seem to have endolymphatic hydrops (PAD/MRI)
- But all patients with endolymphatic hydrops do not have Ménière´s disease!!!
- Many etiologies: insult to the sac?
- Hydrops passive or ”active”?

Bryton C et al. Biorxiv.org 2025

Active profileration of cells in saccular & Reissner membrane!

MMb: inner ear response to a malfunctioning ELS?

LUND UNIVERSITY

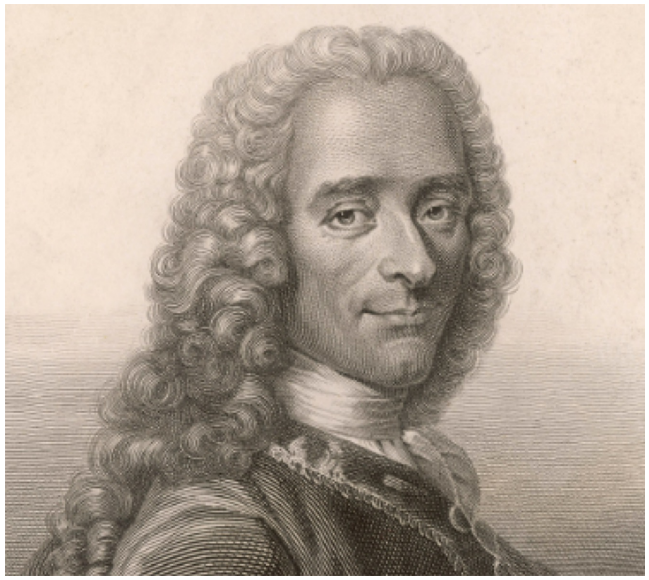
If there are many **different causes** of Meniere´s disease

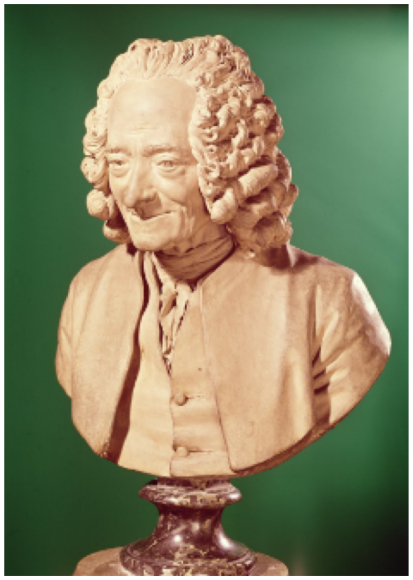
we might need many **different treatments**?



LUND UNIVERSITY

”The main task for the physician is to entertain the patient, while nature takes care of the disease!”







François-Marie Arouet a k a VOLTAIRE

LUND UNIVERSITY

The **placebo effect** is strong for Meniere´s disease

1. We can always cure the vertigo!



Germaine Koh, *Placebo* (ongoing since 2003), small stones gathered locally, bottle, label. Unlimited editions for various places. Photo: G.Koh

2. We can do ”nothing” for hearing and tinnitus! (but we can always try!)

The placebo of choice should be *cheap* and safe!

Threaten with surgery *Kerr et al*
Threaten with gentamicin *Magnusson & Karlberg*

LUND UNIVERSITY

What does not work?

(better than placebo)



lp

OPEN ACCESS

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)

Christine Adrion,[1,2] Carolin Simone Fischer,[1] Judith Wagner,[3] Robert Gürkov,[4] Ulrich Mansmann,[2] Michael Strupp[1,3] On behalf of the BEMED study group

[1]German Center for Vertigo and Balance Disorders, University Hospital Munich, Campus Grosshadern, Munich, Germany
[2]Institute for Medical Informatics, Biometry, and Epidemiology, University of Munich, Campus Grosshadern
[3]Department of Neurology, University Hospital Munich, 81377 Munich
[4]Department of Otorhinolaryngology, Head and Neck Surgery, University Hospital Munich

Correspondence to: M Strupp Michael.Strupp@med.uni-muenchen.de

Additional material is published online only. To view please visit the journal online (http://dx.doi.org/10.1136/bmj.h6816)

Cite this as: *BMJ* 2016;352:h6816
http://dx.doi.org/10.1136/bmj.h6816

Accepted: 02 November 2015

ABSTRACT

STUDY QUESTION

What is the long term efficacy of betahistine dihydrochloride on the incidence of vertigo attacks in patients with Meniere's disease, compared with placebo?

METHODS

The BEMED trial is a multicentre, double blind, randomised, placebo controlled, three arm, parallel group, phase III, dose defining superiority trial conducted in 14 German tertiary referral centres (for neurology or ear, nose, and throat). Adults aged 21-80 years (mean age 56 years) with definite unilateral or bilateral Meniere's disease were recruited from March 2008 to November 2012. Participants received placebo (n=74), low dose betahistine (2×24 mg daily, (n=73)), or high dose betahistine (3×48 mg daily, (n=74)) over nine months. The primary outcome was the number of attacks per 30 days, based on patients' diaries during a three month assessment period at months seven to nine. An internet based randomisation schedule performed a concealed 1:1:1 allocation, stratified by study site. Secondary outcomes included the duration and several observer-reported parameters to assess changes in audiological and vestibular function.

STUDY ANSWER AND LIMITATIONS

Incidence of attacks related to Meniere's disease did not differ between the three treatment groups (P=0.759). Compared with placebo, attack rate ratios were 1.036 (95% confidence interval 0.942 to 1.140) and 1.012 (0.919 to 1.114) for low dose and high dose betahistine, respectively. The overall monthly attack rate fell significantly by the factor 0.758 (0.705 to 0.816; P<0.001). The population based, mean monthly incidence averaged over the assessment period was 2.722 (1.304 to 6.309), 3.204 (1.345 to 7.929), and 3.258 (1.685 to 7.266) for the placebo, low dose betahistine, and high dose betahistine groups, respectively. Results were consistent for all secondary outcomes. Treatment was well tolerated with no unexpected safety findings. Without a control group of patients who did not receive any intervention to follow the natural course of the disease, the placebo effect could not be accurately assessed and differentiated from spontaneous remission and fluctuation of symptoms.

Poor bio-aviability!

Combine betahistine MAO-inhibitor?

The Laryngoscope
© 2016 The American Laryngological, Rhinological and Otological Society, Inc.

Meniett Device in Meniere Disease: Randomized, Double-Blind, Placebo-Controlled Multicenter Trial

Francesca Yoshie Russo, MD; Yann Nguyen, MD, PhD; Daniele De Seta, MD; Didier Bouccara, MD; Olivier Sterkers, MD, PhD; Evelyne Ferrary, MD, PhD; Daniele Bernardeschi, MD, PhD

Objective: To evaluate the efficacy of portable Meniett low-pressure pulse generator (Medtronic Xomed, Jacksonville, FL) in Meniere disease.

Study Design: Randomized, double-blind, placebo-controlled, multicenter trial carried out in 17 academic medical centers.

Methods: One hundred twenty-nine adults presenting Meniere disease (American Academy of Otolaryngology–Head and Neck Surgery criteria) not controlled by conventional medical treatment were included. The protocol included three phases: 1) placement of a transtympanic tube and evaluation of its effect (if resolution of symptoms, the patient was excluded); 2) randomization: 6-weeks treatment with Meniett (Medtronic Xomed) or placebo device; 3) removal of the device and 6-week follow-up period. The evaluation criteria were the number of vertigo episodes (at least 20 minutes with a 12-hour free interval) and the impact on daily life as assessed by self-questionnaires.

Results: Ninety-seven patients passed to the second phase of the study: 49 and 48 patients received the Meniett (Medtronic Xomed) or the placebo device, respectively. In the placebo group, the number of vertigo episodes decreased from 4.3 ± 0.6 (mean ± standard error of the mean) during the first phase to 2.6 ± 0.5 after 6 weeks of treatment, and to 1.8 ± 0.8 after the removal of the device. Similar results were observed in the Meniett device (Medtronic Xomed) group: 3.2 ± 0.4 episodes during the first phase, 2.5 ± after 6 weeks of Meniett device (Medtronic Xomed) treatment, and 1.5 ± 0.2 after the third phase.

Conclusion: An improvement of symptoms was evidenced in all patients, with no difference between the Meniett (Medtronic Xomed) and the placebo device groups. The decrease in the number of vertigo episodes could be explained by an effect of the medical care.

Key Words: Transtympanic tube, inner ear, placebo, endolymphatic hydrops, vertigo.

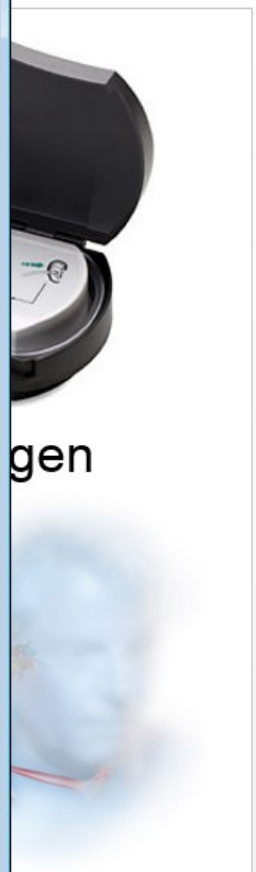
Level of Evidence: 1b.

***Laryngoscope*, 00:000–000, 2016**

INTRODUCTION

Meniere disease is a chronic illness that affects approximately 0.2% of the world's population. The estimated annual incidence of the disease is two per 1,000.[1] have a significant effect on quality of life, including a not insignificant risk of workplace injury.[3]

Because of the natural history of Meniere disease, benefit of each treatment should be compared to a spon-



Intratympanic latanoprost (Xalatan)



***Lindell et al*. Submitted.**

- **Double-blind placebo-controlled multi-centre RCT in Sweden 2013-2016**
- **1 or 3 injections of latanoprost or placebo**
- **No significant effects of latanoprost in any of the study variables (vertigo, hearing etc)**
- No safety problems

LUND UNIVERSITY

Diuretics



- No RCTs
- Still commonly used (old & cheap)
- Spironolactone instead of tiazides?
  (effect on experimental hydrops produced by vasopressin injections in mice!)

LUND UNIVERSITY

SPC-flakes



- Specially processed oat flakes
- 60 -100 g/day (1g/kg body weight)
- Induces Anti-Secretory Factor (ASF)
  -a small protein with strong effects on trans-membrane fluid transportation, expressed in the inner ear

- Maybe some effect?

- ASF-protein now synthezised!!!???

LUND UNIVERSITY

What does work?

(as good as gentamicin)

(Which is better than placebo!)



Intratympanic methylprednisolone versus gentamicin in patients with unilateral Ménière's disease: a randomised, double-blind, comparative effectiveness trial

Mitesh Patel, Kiran Agarwal*, Qadeer Arshad, Mohamed Hariri, Peter Rea, Barry M Seemungal, John F Golding, Jonny P Harcourt, Adolfo M Bronstein*

Summary

Background Ménière's disease is characterised by severe vertigo attacks and hearing loss. Intratympanic gentamicin, the standard treatment for refractory Ménière's disease, reduces vertigo, but damages vestibular function and can worsen hearing. We aimed to assess whether intratympanic administration of the corticosteroid methylprednisolone reduces vertigo compared with gentamicin.

Methods In this double-blind comparative effectiveness trial, patients aged 18–70 years with refractory unilateral Ménière's disease were enrolled at Charing Cross Hospital (London, UK) and Leicester Royal Infirmary (Leicester, UK). Patients were randomly assigned (1:1) by a block design to two intratympanic methylprednisolone (62·5 mg/mL) or gentamicin (40 mg/mL) injections given 2 weeks apart, and were followed up for 2 years. All investigators and patients were masked to treatment allocation. The primary outcome was vertigo frequency over the final 6 months (18–24 months after injection) compared with the 6 months before the first injection. Analyses were done in the intention-to-treat population, and then per protocol. This trial is registered with ClinicalTrials.gov, number NCT00802529.

Lancet 2016; 388: 2753–62

Published Online November 16, 2016 http://dx.doi.org/10.1016/S0140-6736(16)31461-1

See Comment page 2716

*Contributed equally

Neuro-otology Unit, Division of Brain Sciences, Charing Cross Hospital Campus, Imperial College London, London, UK (M Patel PhD, K Agarwal MD, Q Arshad PhD, B M Seemungal MD, Prof J F Golding PhD, Prof A M Bronstein MD); Ear,

LUND UNIVERSITY

Findings Between June 19, 2009, and April 15, 2013, 256 patients with Ménière's disease were screened, 60 of whom were enrolled and randomly assigned: 30 to gentamicin and 30 to methylprednisolone. In the intention-to-treat analysis (ie, all 60 patients), the mean number of vertigo attacks in the final 6 months compared with the 6 months before the first injection (primary outcome) decreased from 19·9 (SD 16·7) to 2·5 (5·8) in the gentamicin group (87% reduction) and from 16·4 (12·5) to 1·6 (3·4) in the methylprednisolone group (90% reduction; mean difference −0·9, 95% CI −3·4 to 1·6). Patients whose vertigo did not improve after injection (ie, non-responders) after being assessed by an unmasked clinician were eligible for additional injections given by a masked clinician (eight patients in the gentamicin group *vs* 15 in the methylprednisolone group). Two non-responders switched from methylprednisolone to gentamicin. Both drugs were well tolerated with no safety concerns. Six patients reported one adverse event each: three in the gentamicin group and three in the methylprednisolone group. The most common adverse event was minor ear infections, which was experienced by one patient in the gentamicin group and two in the methylprednisolone group.

Interpretation Methylprednisolone injections are a non-ablative, effective treatment for refractory Ménière's disease. The choice between methylprednisolone and gentamicin should be made based on clinical knowledge and patient circumstances.

Funding Ménière's Society and National Institute for Health Research Imperial Biomedical Research Centre.

Copyright © The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY license.

Nose and Throat Depa
Charing Cross Hospital
London, UK (M Hariri M
J P Harcourt MD); Ear, N
Throat Department, Le
Royal Infirmary, Leices
University Hospitals, L
UK (P Rea MD); and
Department of Psycho
University of Westmin
London, UK (Prof J F Go

Correspondence to
Prof Adolfo M Bronstein
Neuro-otology Unit, Div
Brain Sciences, Charing C
Hospital Campus, Imperi
London, London W6 8R
a.bronstein@imperial.a

IND
VERSITY

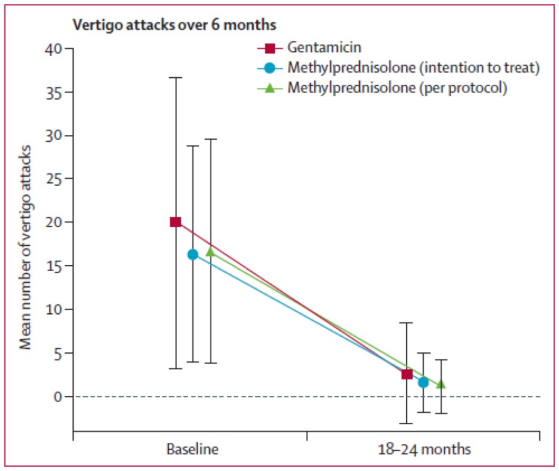


Figure 2: Mean number of attacks of vertigo 6 months before treatment and in the final 6 months
Bars are SDs.

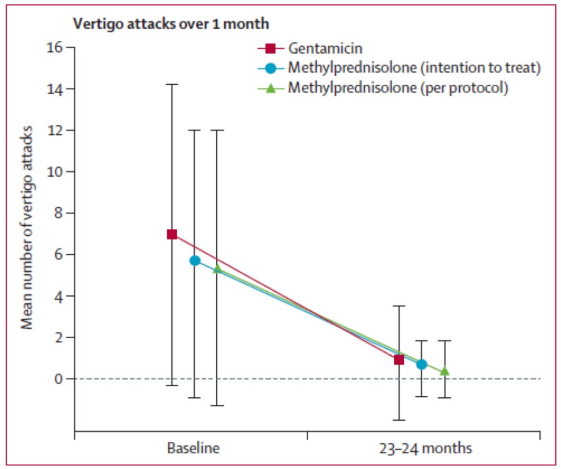
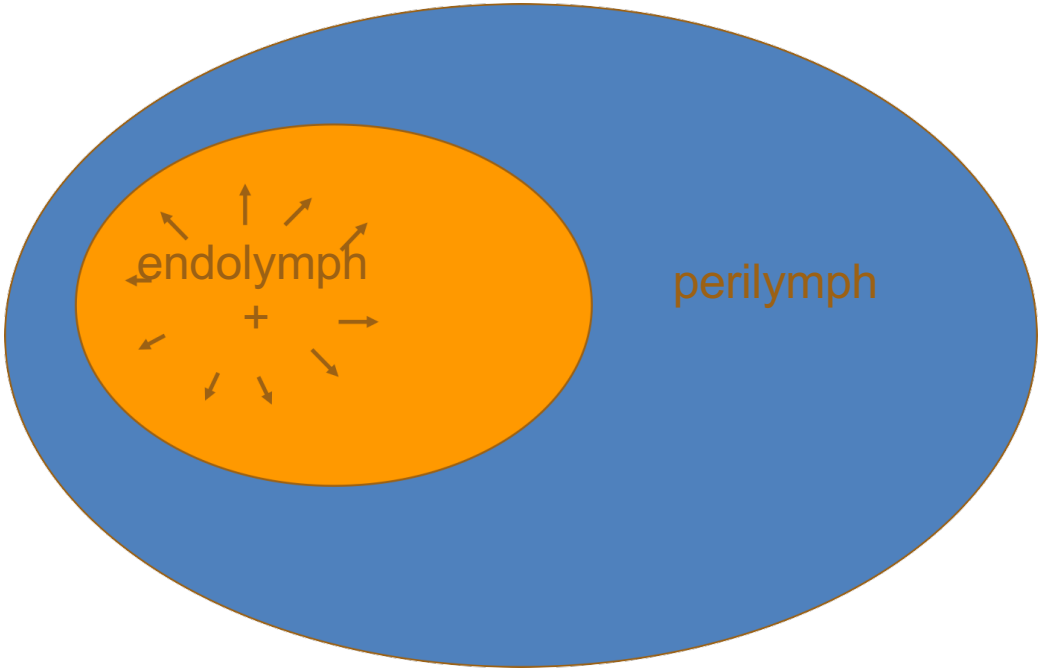


Figure 3: Mean number of attacks of vertigo in the 1 month before treatment and in the final 1 month
Bars are SDs.

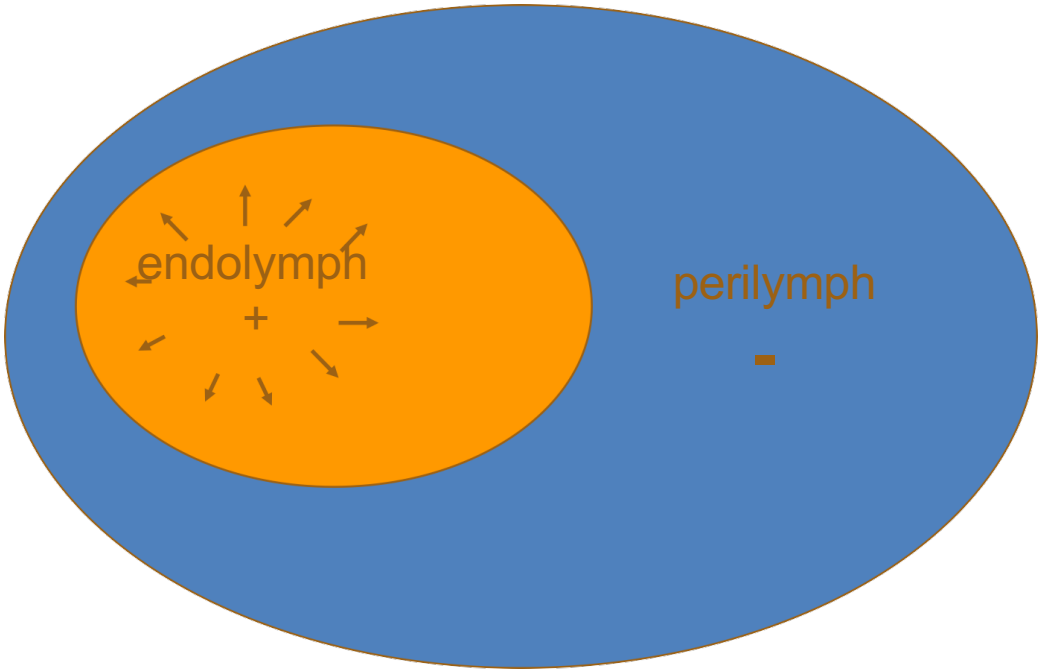
Possible mechanisms of endolymphatic hydrops



1. Increased endolymphatic volume

LUND UNIVERSITY

Possible mechanisms of endolymphatic hydrops



2. Decreased perilymphatic volume

LUND UNIVERSITY

“Typical” case of decreased perilymphatic volume / pressure?

Woman 42 years

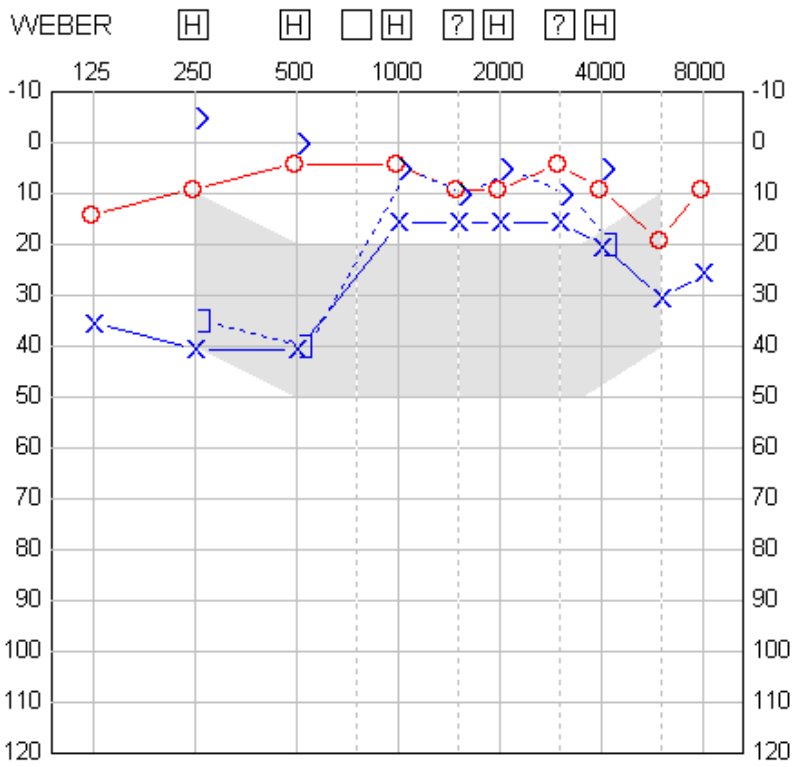
Headache, fluctuating left-sided tinnitus, fullness and hearing loss

Attacks of vertigo and nausea > 20 minutes

Headache disappears when she lies down = “orthostatic headache”

Fluctuating left-sided, low-frequency sensorineural hearing loss

LUND UNIVERSITY



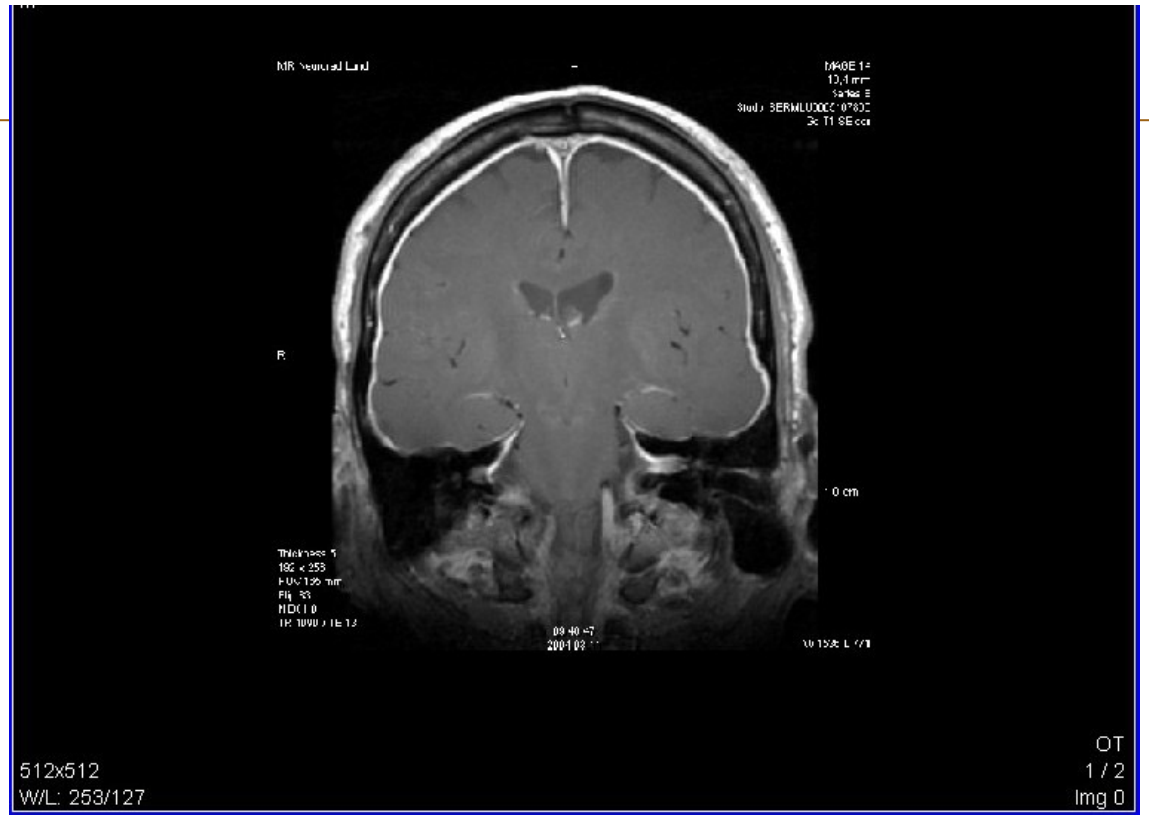
LUND UNIVERSITY

CT brain normal

MRI with gadolinium: pachymeningeal enhancement and “sagging brain”



pachymeningeal contrast enhancement



”Idiopathic intracranial hypotension”

Spontaneous spinal CSF leakage

LUND UNIVERSITY

No spontaneous remission

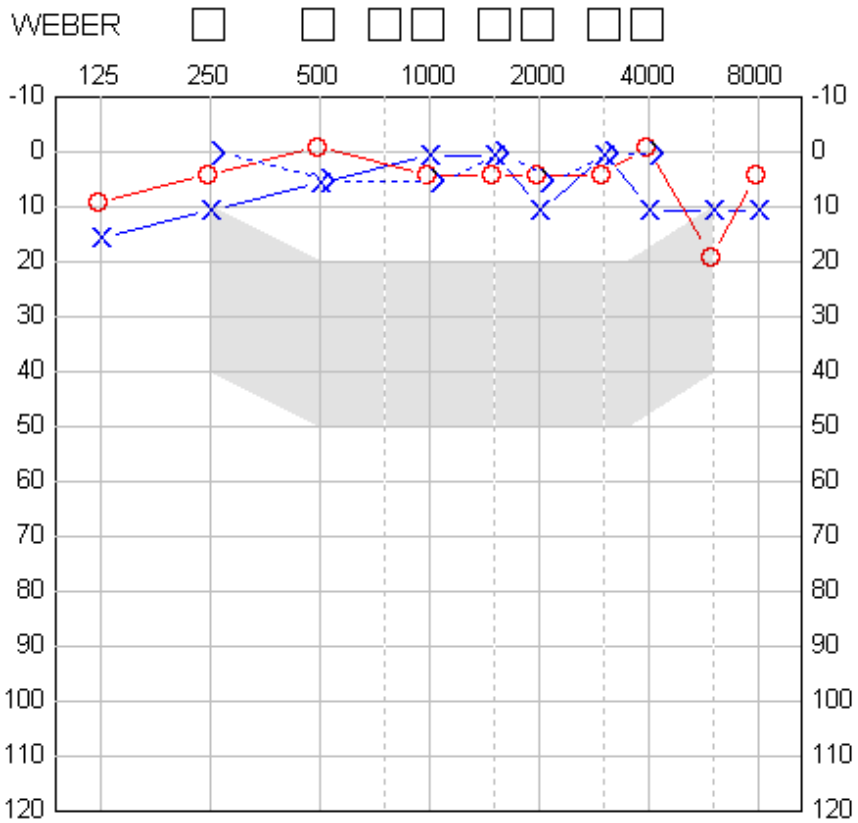
After 1 month epidural autologous 20 ml “blood patch” at L2-3, repeated after 3 days

1 day after last blood patch headaches disappear

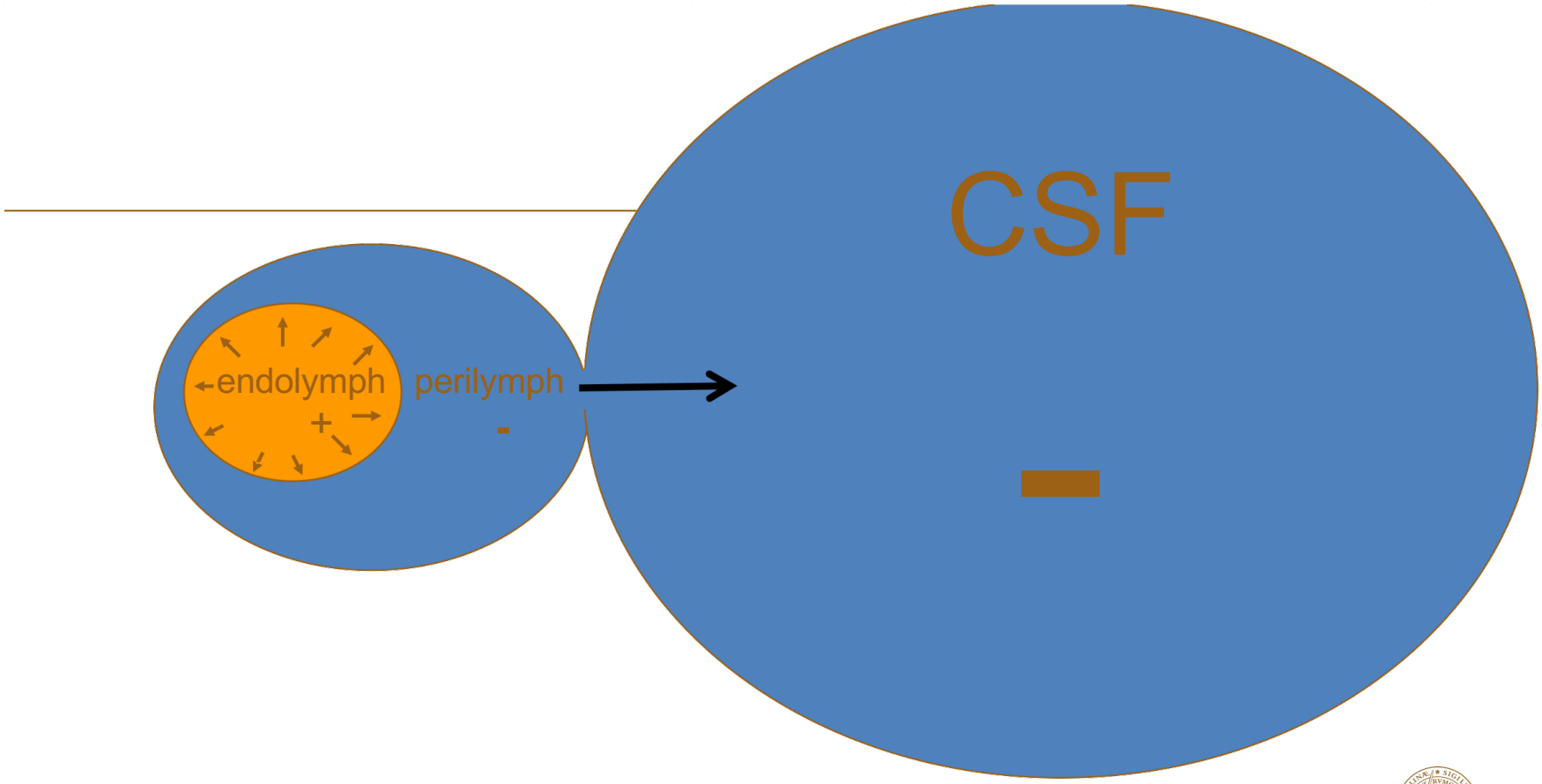
Audio-vestibular symptoms gradually disappear over one month

MRI and audiometry normal 2 months later

LUND UNIVERSITY

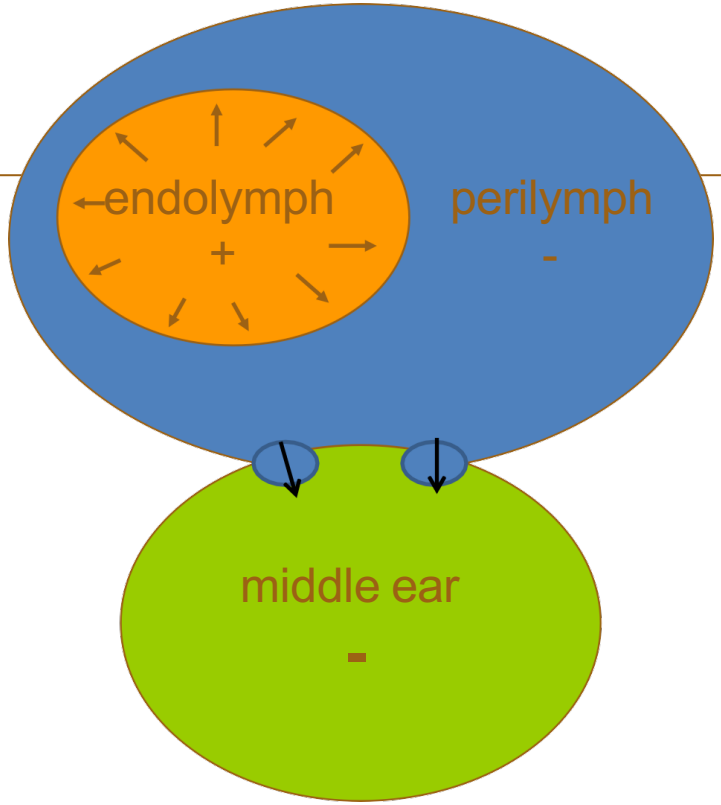


LUND UNIVERSITY



2. Decreased perilymphatic volume due to decreased CSF volume

LUND UNIVERSITY



3. Decreased perilymphatic pressure / volume due to negative varying middle ear pressure?

LUND UNIVERSITY

Acta Oto-Laryngologica, 2012; 132: 266–270

informa
healthcare

ORIGINAL ARTICLE

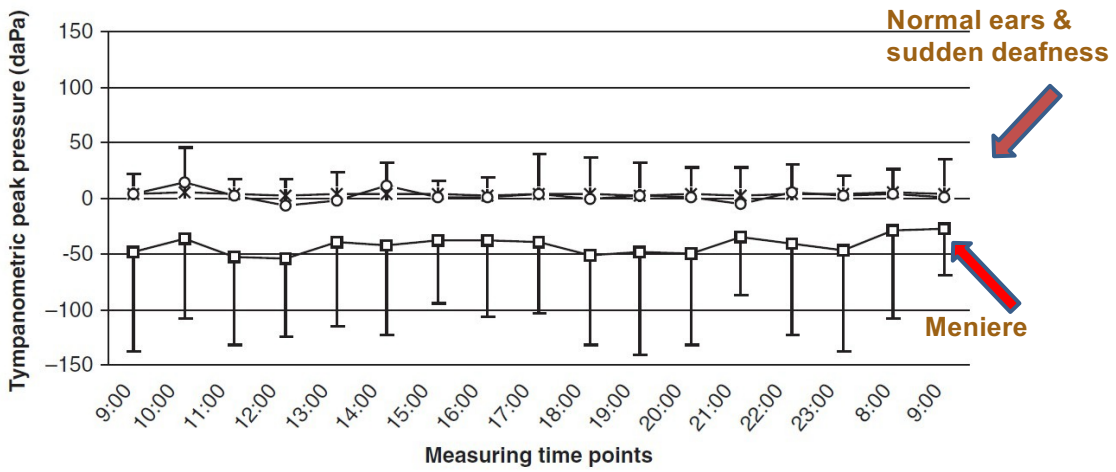
Long-term middle ear pressure measurements in inner ear disorders

JONAS J.-H. PARK, KERSTIN LUECKE, INGER LUEDEKE, OLIVER EMMERLING & MARTIN WESTHOFEN

Department of Otolaryngology and Head and Neck Surgery, University Hospital Aachen, RWTH Aachen University, Aachen, Germany

Significant middle ear under-pressure in MD

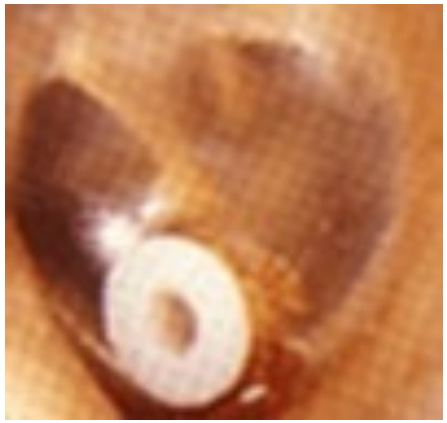
LUND
UNIVERSITY



e 1. Healthy subjects (-×-), patients with sudden hearing loss (-◇-), and patients with Meniere's disease (□) (SD bars are depicted only e direction for illustrative purposes).

Park JJ et al *Acta Otolaryngol* 2012

LUND UNIVERSITY

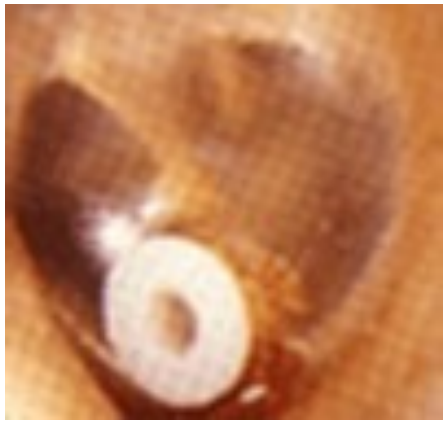


Grommets & Meniere

Tumarkin & others **1960:es Great Britain**
Brackman D **1980: normal tymp. in Meniere**

Montandon et al. **1988**
28 Meniere patients referred for surgery (nx/labx)
Grommet instead
Follow-up 24-48 months (mean 30 m)
23 patients (82%) total remission or improved

LUND UNIVERSITY



Grommets & Meniere

***Kanegaonkar RG et al*. 2019**

33 Meniere patients with grommets (mean 33 m)

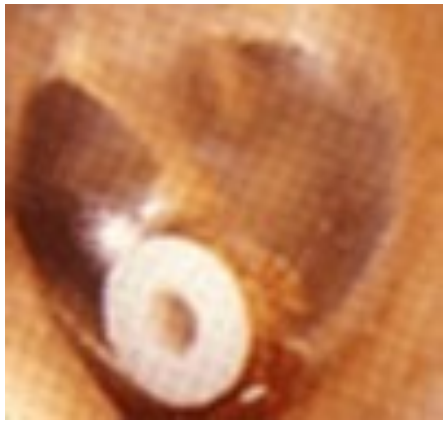
91% improved vertigo

Low-tone PTA mean improvement 8 dB

80% improved tinnitus

100% improved aural fullness

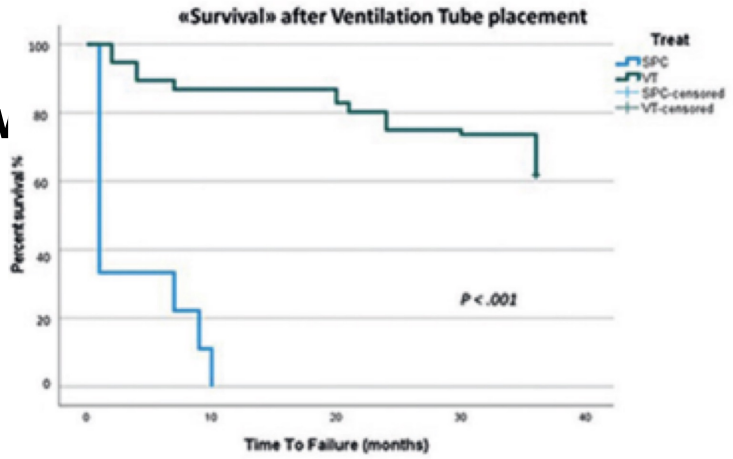
LUND UNIVERSITY



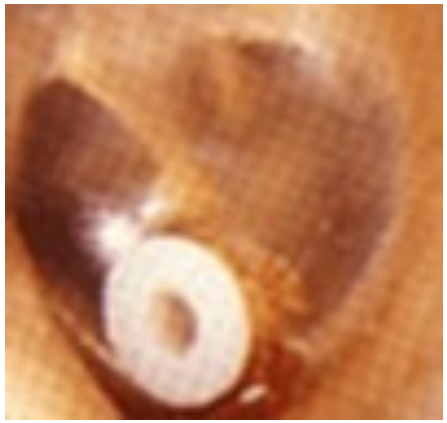
Grommets & Meniere

***Grönlund C et al*. 2020**
Review
Need for good RCT!!!

***Marcelli V et al*. 2021**
76 Meniere patients w
62% vertigo control



SPC: Standard Preventive Care; VT: Ventilation tube.



Grommets & Meniere

***Larsen CG et al*. Trials 2022**

Transmyringeal ventilation tube insertion for unilateral Menière's disease: a protocol for a prospective, sham-controlled, double-blinded, randomized, clinical trial

On-going study in Denmark!
Danes! Recruit patients for the study!
caspergroenlund@hotmail.com
Grommet insertion / sham operation
3 months follow-up (primary end-point)
Change treatment? 12 months follow-up

LUND UNIVERSITY

Intra-tympanic gentamicin

the most cost-effective treatment in the world
(next to particle repositioning maneuvers for BPPV)

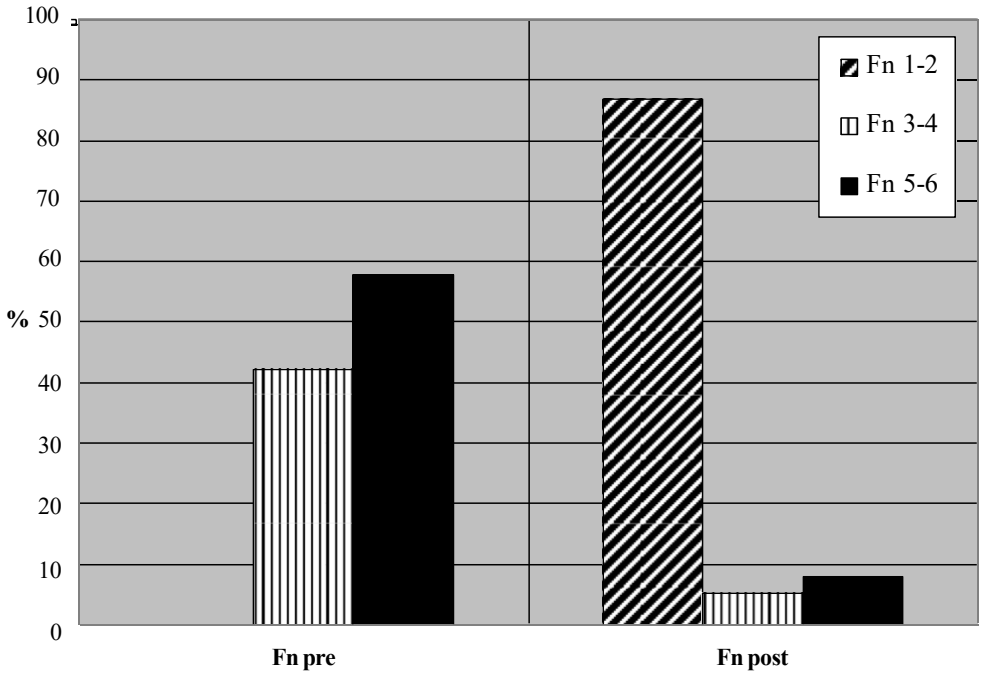


(and the reason why we don´t do vestibular neurectomies!)

LUND UNIVERSITY

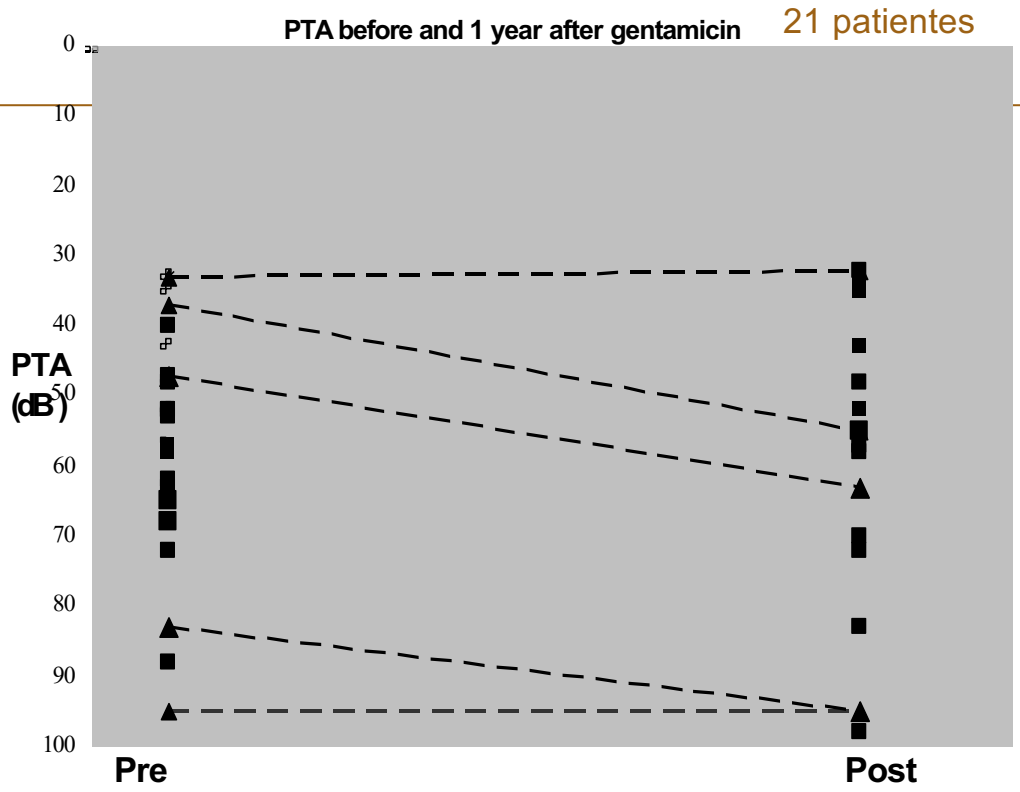
Functional level before and 1 year after gentamicin (21 patients)

(Buffered Gentamicin 30mg/ml 1-2 injections)



Most gentamicin studies show 85-90% ”cure” of vertigo

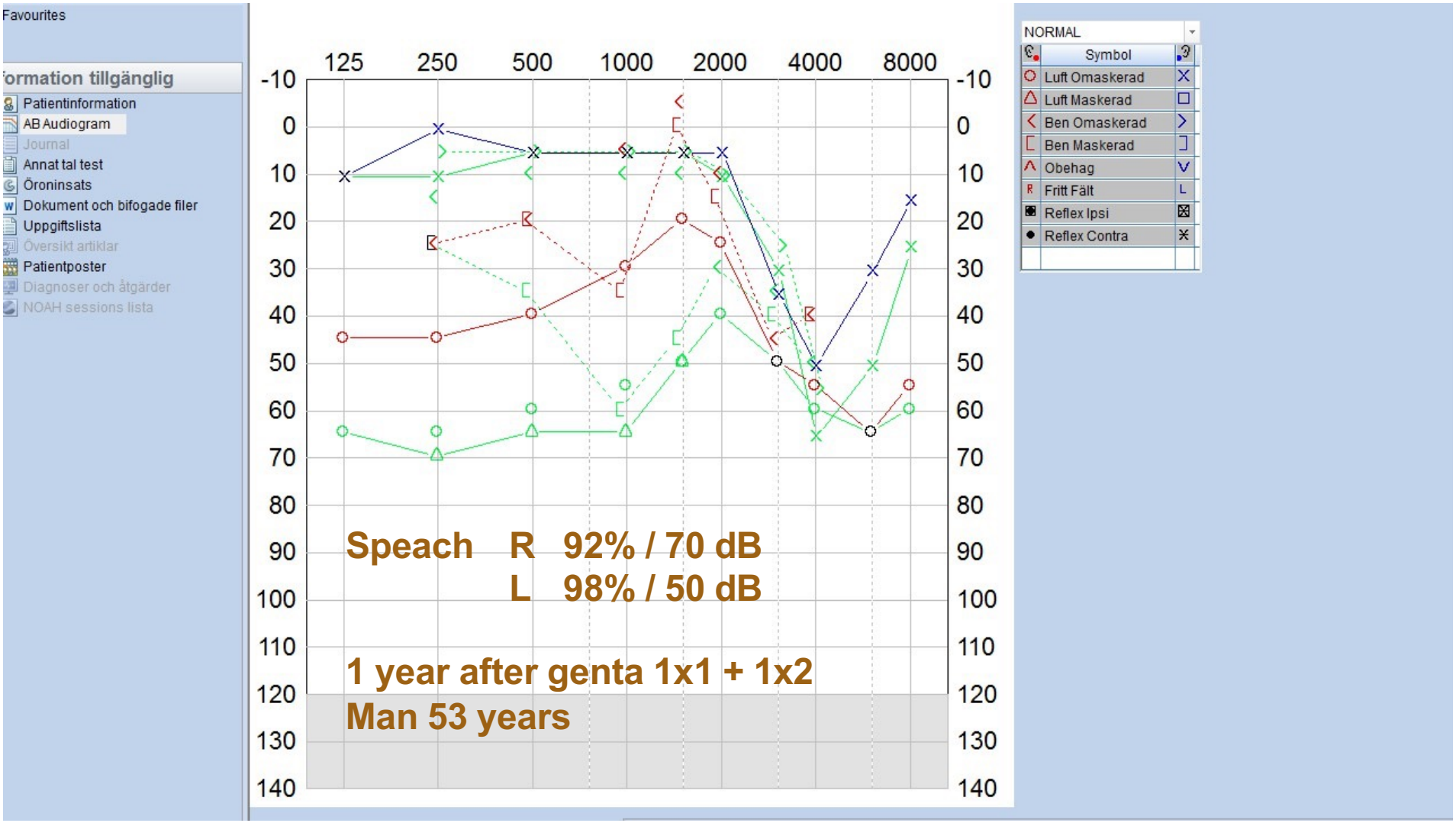
LUND UNIVERSITY

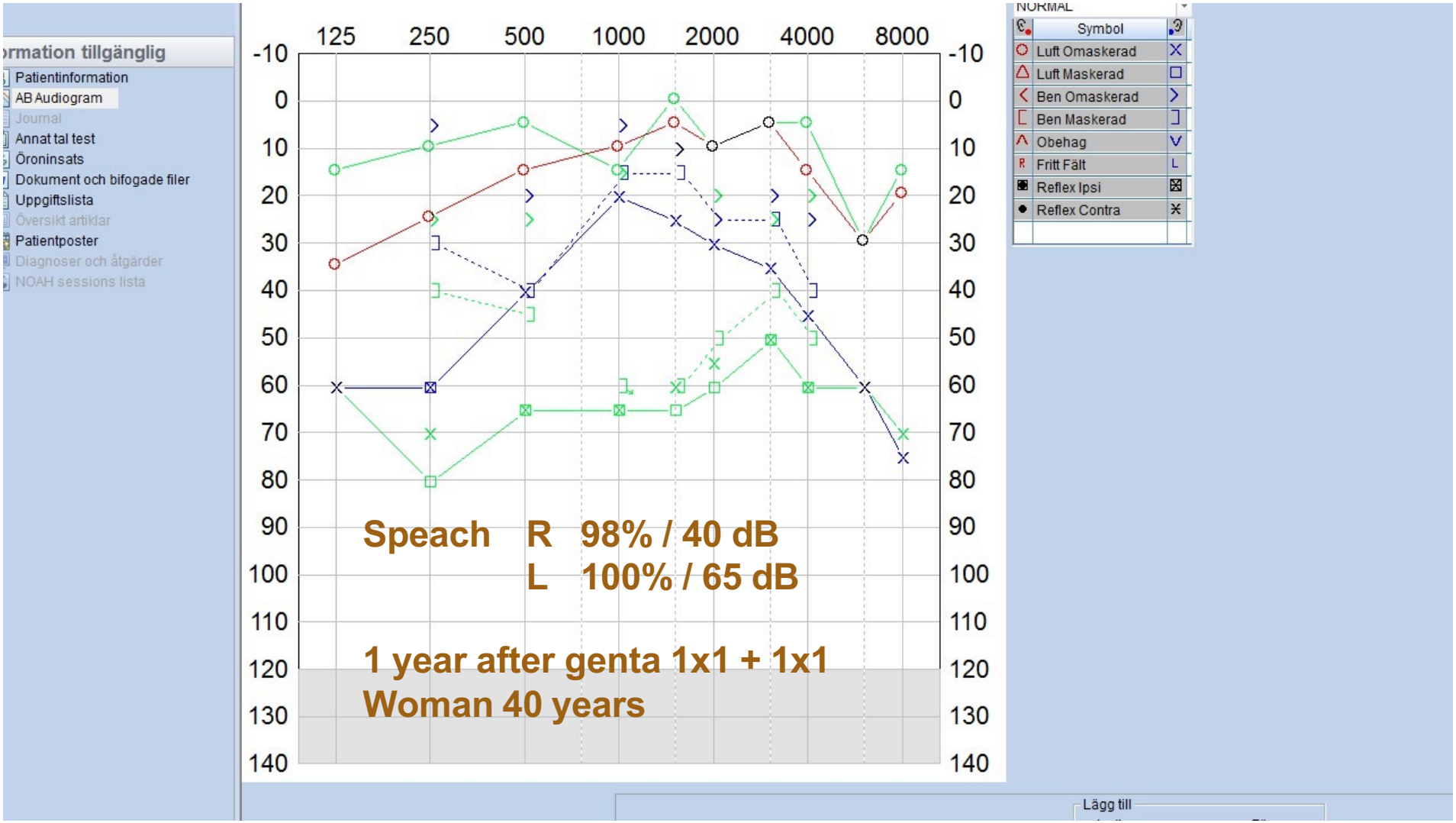


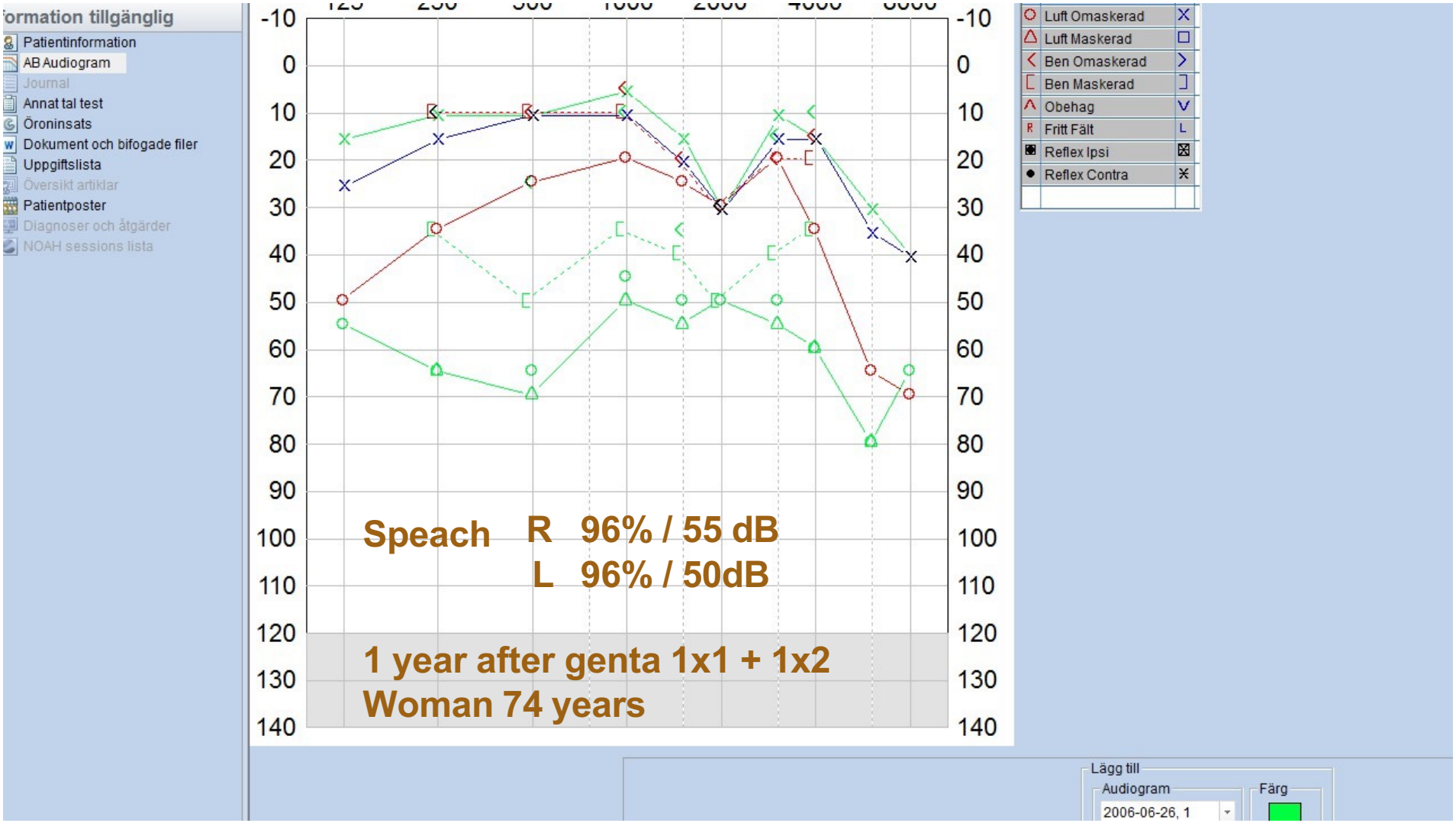
Low risc of hearing loss with low-dose titration schemes!

Some patients even *improve* their hearing dramatically!

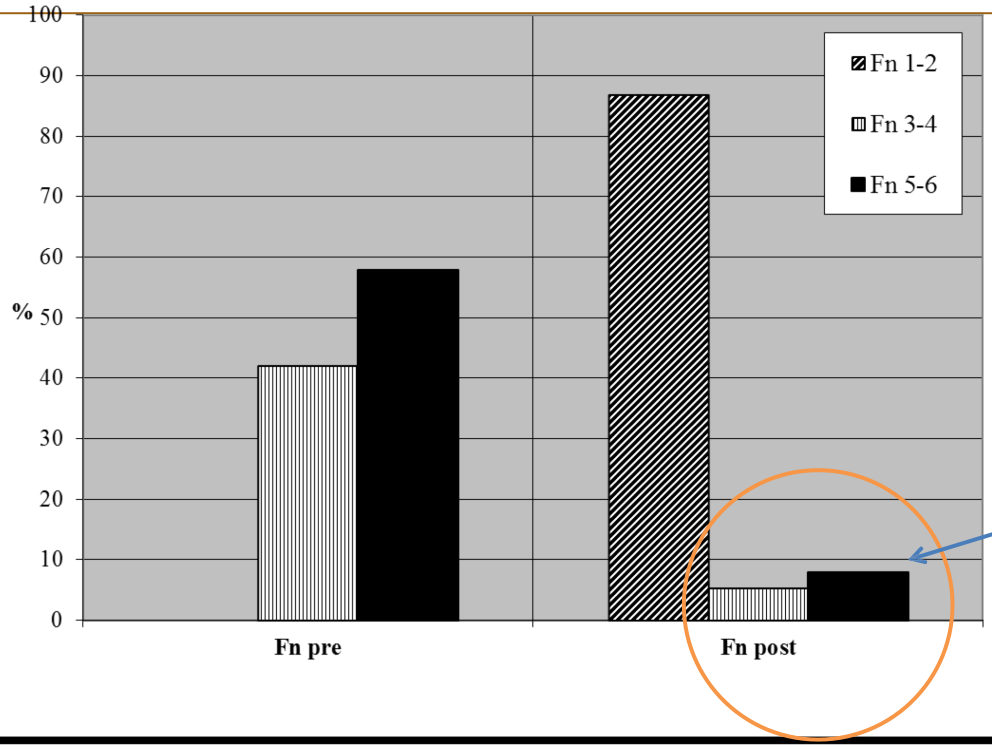
LUND UNIVERSITY


Favourites
ormation tillgänglig
Patientinformation
AB Audiogram
Journal
Annat tal test
Öroninsats
Dokument och bifogade filer
Uppgiftslista
Översikt artiklar
Patientposter
Diagnoser och åtgärder
NOAH sessions lista
125
250
500
1000
2000
4000
8000
-10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
Speach R 92% / 70 dB
L 98% / 50 dB
1 year after genta 1x1 + 1x2
Man 53 years
NORMAL
Symbol
Luft Omaskerad
Luft Maskerad
Ben Omaskerad
Ben Maskerad
Obehag
Fritt Fält
Reflex Ipsi
Reflex Contra


rmation tillgänglig
Patientinformation
AB Audiogram
Journal
Annat tal test
Öroninsats
Dokument och bifogade filer
Uppgiftslista
Översikt artiklar
Patientposter
Diagnoser och åtgärder
NOAH sessions lista
125 250 500 1000 2000 4000 8000
-10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140
Speach R 98% / 40 dB
L 100% / 65 dB
1 year after genta 1x1 + 1x1
Woman 40 years
NORMAL
Symbol
Luft Omaskerad
Luft Maskerad
Ben Omaskerad
Ben Maskerad
Obehag
Fritt Fält
Reflex Ipsi
Reflex Contra
Lägg till


formation tillgänglig
Patientinformation
AB Audiogram
Journal
Annat tal test
Öroninsats
Dokument och bifogade filer
Uppgiftslista
Översikt artiklar
Patientposter
Diagnoser och åtgärder
NOAH sessions lista
-10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
Luft Omaskerad
Luft Maskerad
Ben Omaskerad
Ben Maskerad
Obehag
Fritt Fält
Reflex Ipsi
Reflex Contra
Speach R 96% / 55 dB
L 96% / 50dB
1 year after genta 1x1 + 1x2
Woman 74 years
Lägg till
Audiogram
2006-06-26, 1
Färg

entamicin



Not cured by gentamicin!

What to do?

10%

LUND UNIVERSITY

Repeat gentamicin injections!!!!!

We perform them ”blinded”!

But how many times???

LUND UNIVERSITY



Is the **round window** really the main entrance for chemical compounds into the inner ear?

No, probably not!

LUND UNIVERSITY



More and more evidence speaks in favor of the **oval window**!

LUND UNIVERSITY

Since 2003 we have performed
”oval window gentamicin treatment”
in patients that do not respond to repeated
intratympanic injections

Rationale

Put gentamicin directly on the stapes,
protect the round window!

LUND
UNIVERSITY

Oval Window Gentamicin

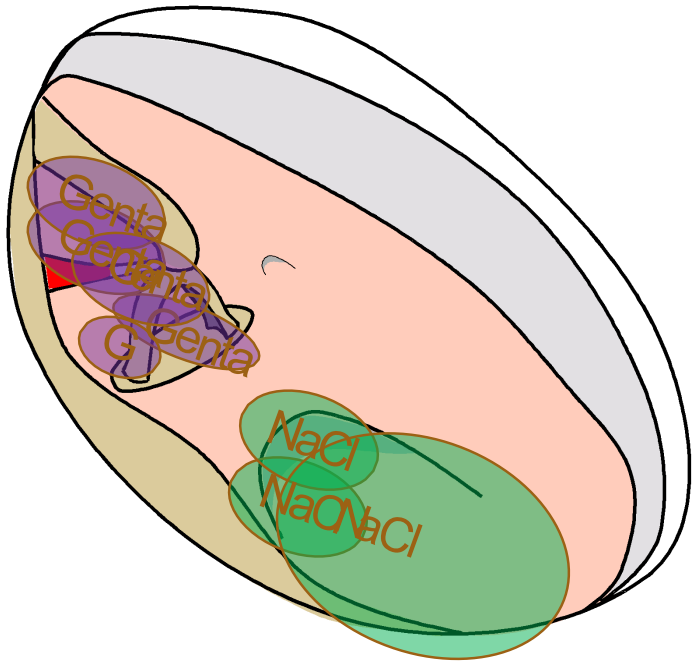
M Magnusson

1. Expose as for a stapedotomy, Clean niche

2. ”Protect” round window with gelfoam soaked in NaCl

3. Enter gelfoam soaked with gentamicin (30mg/ml-buffered) on footplate. Cover Stapes with more gelfoam w gentamicin

4. Close ear



LUND UNIVERSITY

9 patients > 2 years follow-up

AAO Functional level score before and after oval window gentamicin

Patient	Before treatment	6 months post treatment	2-5 years post treatment
1	5-4	1	2
2	3	1	2
3	5-6	1	2
4	5-6	1	2
5	5-6	1	2
6	5-6	1	2
7	5-6	2	2
8	4-5	2	3
9	5-6	5-6	2*

* After labyrinthectomy

LUND UNIVERSITY

Ménière´s disease - How I do it!



Honesty! I can ”always” cure your vertigo, but I have no proof that I can affect your hearing loss or tinnitus (but I can try!)

Safety! I take care of You!
”Psychosupportive therapy”

”You never get a second chance to make a first impression!”

LUND UNIVERSITY

Ménière´s disease - How I do it!



Information + antivertigo drugs
Drink 1 l water extra (vasopr.)! Avoid NaCl! (4-8 w)
Put in a grommet!! (4-8 w)
Intratympanic steroids 2 injections (4-8 w)
(Spironolactone / SPC-flakes / Betahistin / SSRIs…?)
1 intratympanic gentamicin injection
Wait 2 weeks: vHIT/video: no signs of vest lesion =
1 more injection (4-8 w)
If attacks continue: 2 injections on 1 day
If attacks continue: 4 inj? (parac+gelfoam+genta?)
Oval window gentamicin
Labyrinthectomy (last one > 15 years ago!)

Nerve section? (only one performed in Sweden last 25 ys)
Sac surgery ?– endolymphatic duct clipping (*Saliba I et al.*)?

LUND UNIVERSITY

