The 13th LION December Global Broadcast December 10, 2019

A New Vision of Global E-learning

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Kuopio – Finland
Aarno DIETZ

Chennai – India
Ravi RAMALINGAM

London – UK
Sherif KHALIL

Béziers – France
Thibaud DUMON

Hannover – Germany
Rolf SALCHER

Kerstin WILLENBORG
The 13th LION December Global Broadcast is supported with unrestricted educational grant by MED-EL and other sponsors.
The 13th LION December Global Broadcast Welcomes 10 International Institutions
**SURGEON:**
Ravi Ramalingam  
KKR ENT Hospital & Research Institute  
Chennai (India)

**TYPE OF SURGERY:** Cochlear implantation

**PLANNED SURGERY:** Right sided surgery for a 2 year old, with ADVANCED BIONICS with Ultra Slim J Electrode

**SURGICAL TECHNIQUE:** Classic post aural approach with Cortical Mastoidectomy with posterior tympanotomy and peri round window insertion
Clinical history:

2 year old baby boy presented with congenital bilateral hard of hearing and delayed speech (Informant mother).

Born to II degree consanguinous marriage, full term LSCS delivery.

With no pre/intra or post natal complications.
Audiometry:

- Behavioral observation audiometry: Bilateral profound hearing loss.
- Impedence Audiometry: Bilateral ‘A’ Type.
- OAE: Suggestive of outer hair cell dysfunction.
- BERA: Bilateral Profound Hearing Loss
Imaging:

Ravi Ramalingam – AB cochlear implantation- Right ear
Image: Ravi Ramalingam – AB cochlear implantation - Right ear
Imaging:

Ravi Ramalingam – AB cochlear implantation - Right ear
SURGEON: Antonio della Volpe
Santobono –Pausilipon Children’s Hospital of Naples (Italy)

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: MED-EL Mi1250 SYNCHRONY 2 FLEX 28 (right ear)

SURGICAL TECHNIQUE: Cochlear Implant Standard Technique

University Hospital Santobono Pausilipon
Naples, Italy

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December 10, 2019
Clinical history:

- Male 3 yrs
- Progressive bilateral profound hearing loss
- Congenital cytomegalovirus infection
- Ganciclovir therapy at birth
### Audiometry:

**Patient Data**

<table>
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<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>Name</td>
<td>Antonio della Volpe</td>
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<tr>
<td>Date</td>
<td>2019-12-10</td>
</tr>
<tr>
<td>Age Group</td>
<td>Pediatric</td>
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**Test Results**

- **Audiogram:**
  - **Bone Conduction:**
    - 1,000 Hz: 25 dB HL
    - 2,000 Hz: 20 dB HL
    - 4,000 Hz: 15 dB HL
  - **Air Conduction:**
    - 1,000 Hz: 10 dB HL
    - 2,000 Hz: 10 dB HL
    - 4,000 Hz: 15 dB HL

**Preferences:**

- **Bone Conduction:**
  - Preferred: Water
- **Air Conduction:**
  - Preferred: Toy

**Notes:**

- Normal hearing levels observed in both bone and air conduction.

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**University Hospital Santobono Pausilipon**

**Naples, Italy**

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**The 13th LION December Global Broadcast**

**December 10, 2019**
Imaging: MRI/TC

Antonio della Volpe – MED-EL SYNCHRONY 2 Flex 28 cochlear implantation - Right ear
Antonio della Volpe – MED-EL SYNCHRONY 2 Flex 28 cochlear implantation - Right ear
MED-EL Otoplan Report:

Patient name: FETA TRAJAN  
Date of birth: 2016-11-22 
Ear side: Right  
Image acquisition date: 2019-11-05 12:10:14  
Image resolution: 0.5 x 0.5 x 0.5mm

Cochlear parameters

Diameter (A Value): 8.6mm  
Height (H Value): 2.5mm  
Width (B Value): 6.3mm  
Estimated CDL: 32.4mm
Selected Electrode: FLEX28

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<th>SG</th>
<th>Ave</th>
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<td>Hz</td>
<td>mm</td>
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<td>3.2</td>
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**FLEX28**

1. 19 platinum electrode contacts. Optimal spacing over a 23.1 mm stimulation range
2. Diameter at basal end: 0.8 mm
3. FLEX-Tip for minimal insertion trauma. Dimensions at apical end: 0.5 x 0.4 mm
SURGEON:
Kerstin Willenborg
University Hospital
Hannover (Germany)

TYPE OF SURGERY: Bone Anchored Hearing Aid implantation

PLANNED SURGERY: BAHA ATTRACT implantation

SURGICAL TECHNIQUE: ONLINE CASE PRESENTATION DURING THE BROADCAST
**SURGEON:** Aarno Dietz  
University Hospital  
Kuopio (Finland)

**TYPE OF SURGERY:** Cochlear implantation

**PLANNED SURGERY:** OTICON EVO electrode array implantation (right ear)

**SURGICAL TECHNIQUE:** Transmastoid posterior tympanotomy approach in local anesthesia without sedation
Clinical history:

• 76 years old gentleman
• Diabetes Typ 2, hypertension, prostatic ca (remission)
• Left ear sudden deafness 20 years ago
• Right ear progressive hearing loss
• No speech recognition
• Some lip reading
• Loss of many social contacts due to hearing loss
Audiometry:

Aarno Dietz – OTICON EVO cochlear implantation - Right ear

Frequency in Hertz (Hz)
Imaging:

Aarno Dietz – OTICON EVO cochlear implantation - Right ear
Imaging:

Cochlear size

A-measure = 9.9 mm
SURGEON: Alex Huber
University Medical School
Zurich (Switzerland)

TYPE OF SURGERY: Cochlear implantation in Single Sided Deafness

PLANNED SURGERY: ADVANCED BIONICS HiFocus implantation (right ear)

SURGICAL TECHNIQUE: Facial recess, round window insertion
Clinical history:

57 y/o male patient suffering with single sided hearing loss after sudden deafness 10/2018. There was no improvement after systemic and intratympanic steroid treatment. Retrocochlear pathology was excluded by MRI. The patient tried conventional hearing aids, CROS and bone conduction hearing aids without success. The patient is motivated for a CI and has realistic expectations.
Alex Huber – AB cochlear implantation - Right ear
**SURGEON:**
Robert Mlynski
Rostock University Medical Center
Dept. of Otorhinolaryngology, Head and Neck Surgery, "Otto Koerner"
Rostock (Germany)

**TYPE OF SURGERY:** Second look with Vibrant Soundbridge implantation

**PLANNED SURGERY:** VSB right ear

**SURGICAL TECHNIQUE:** Transmastoid / Transcanal approach
Medical history:

• 61 years old female
• multiple middle ear surgeries both sides
• Vibrant Soundbridge Implantation left side 08/2017
• tympanoplasty type III PORP (Cholesteatoma) right side 10/2018
• mixed hearing loss right side
Audiometry:

- Pure tone thresholds right ear
- Speech perception right ear
Imaging:

CT Scan before the tympanoplasty 10/2019
SURGEON: Rolf Salcher
University Hospital Hannover (Germany)

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: NUCLEUS MRA implantation

SURGICAL TECHNIQUE: ONLINE CASE PRESENTATION DURING THE BROADCAST
SURGEON:
Sherif Khalil
University Medical College
London (UK)

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: ADVANCED BIONICS Ultra 3D Cochlear Implantation with AIM monitoring (Right ear)

SURGICAL TECHNIQUE: (Please type brief description here)
Clinical history:

- 72 female
- Hearing loss started at the age of 50.
- Received bilateral hearing aids
- Progressive hearing loss
- Bilateral tinnitus
- Balance OK
- Recent drop of hearing in right ear <12 months ago; no benefit from H/A
Audiometry:

Speech tests:

BKB (in Quiet):
12.5%

AB Words

Phonemes: 23%
Words: 13%
Sherif Khalil – AB cochlear implantation - Right ear
SURGEON: Thibaud Dumon
Causse Ear Clinic
Colombiers-Béziers (France)

TYPE OF SURGERY: Bone Conduction Implant
PLANNED SURGERY: New BONEBRIDGE MedEl
SURGICAL TECHNIQUE: retroauricular approach
Clinical history:

- Male 62 years old
- Left ear. Perforation by blast (bombing) in 1980
- Left Tympanoplasty x 2
- Left hearing loss + tinnitus
- Otoscopy: left ear: subtotal atelectasy
  right ear: normal
- Audiogram: left ear: 60 dB mixed HL, 40 dB ABG
  right ear: normal

Thibaud Dumon – New BONEBRIDGE implantation - Left ear
Audiometry:

Thibaud Dumon – New BONEBRIDGE implantation - Left ear
Imaging:

Thibaud Dumon – New BONEBRIDGE implantation - Left ear
Imaging: pre OP measurements
SURGEON: Joachim Müller
University Hospital
Munich (Germany)

TYPE OF SURGERY: Cochlear implantation

PLANNED SURGERY: MED-EL SYNCHRONY 2 Flex Soft implantation (right ear)

SURGICAL TECHNIQUE: Standard minimal incision, posterior tympanotomy, round window insertion with structure preservation and aimed hearing preservation
Clinical history:

- progressive hearing loss on both ears
- history of noise exposure
- had been using hearing aids for years
Audiometry:

<table>
<thead>
<tr>
<th>Weber</th>
<th>Rinne</th>
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<tbody>
<tr>
<td>99.9</td>
<td>56.6</td>
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<tr>
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<td>Schallindex [dB HL]</td>
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December 10, 2019

University Hospital Munich, Germany
SURGEON:
Nils Prenzler
University Hospital
Hannover (Germany)

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: OTICON EVO electrode array implantation

SURGICAL TECHNIQUE: ONLINE CASE PRESENTATION DURING THE BROADCAST
SURGEON: Aarno Dietz
University Hospital
Kuopio (Finland)

TYPE OF SURGERY: Cochlear implantation

PLANNED SURGERY: MED-EL SYNCHRONY 2 Flex\textsuperscript{26} implantation (right ear)

SURGICAL TECHNIQUE: Suprameatal approach in local anesthesia without sedation
Clinical history:

• 83-years old gentleman
• Hypertension, hypercholesterolemia, general atherosclerosis, ischemic heart disease,
• Radical cavity right ear after cholesteatoma surgery in the 50s. Total ossification of the right labyrinth and cochlea
• Progressive hearing loss
• No speech understanding
• No lip reading
Clinical history:

- History of chronic otitis media in the right ear in the 50s & 60s
- Right middle ear symptomless for the last 30 years
- Extensive scar formation in the middle ear and mastoid
- First surgery in summer 2019 and encapsulated tympanic cholesteatoma was removed, scar formation in the antrum
- Second stage surgery and cochlear implantation
Imaging:

Aarno Dietz – MED-EL SYNCHRONY 2 cochlear implantation - Right ear
SURGEON: Thibaud Dumon
Causse Ear Clinic
Colombiers-Béziers (France)

TYPE OF SURGERY: Bone Anchored Hearing Aid implantation

PLANNED SURGERY: PONTO implantation (right ear)

SURGICAL TECHNIQUE: MIPS Minimally Invasive PONTO Surgery
Clinical history:

- Male 74 years old
- Long history of chronic otitis
- Bilateral grommets x 3
- Right tympanoplasty 2014, 2017, 2018 cholesteatoma, 2019
- Bilateral hearing loss right > left + tinnitus
- Audiogram: right ear: profound mixed HL
  left ear: 40 dB SNHL
Audiometry:

Thibaud Dumon – PONTO implantation - Right ear
SURGEON: Thomas Lenarz
University Hospital Hannover (Germany)

TYPE OF SURGERY: Middle Ear implantation

PLANNED SURGERY: CARINA implantation

SURGICAL TECHNIQUE: ONLINE CASE PRESENTATION DURING THE BROADCAST
**SURGEON:**
Joachim Müller
University Hospital
Munich (Germany)

**TYPE OF SURGERY:** Tympanoplasty Revision Surgery after cholesteatoma surgery

**PLANNED SURGERY:** Tympanoplasty Revision after cholesteatoma surgery
Implantation of an active middle ear implant (VSB-Vibrant Soundbridge) (left ear)

**SURGICAL TECHNIQUE:** postauricular approach, partial mastoidectomy, TM blunting
VSB coupling to the oval window
Clinical history:

- history of multiple surgeries of both ears (cholesteatoma)
- last reconstruction: Tympanoplasty Type IIIc (left ear), Tympanoplasty Type IIIb (right ear)
Audiometry:

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<tr>
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<th>Right (Rechts)</th>
<th>Left (Links)</th>
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<td>12k</td>
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</tbody>
</table>

**Weber:**
- Right (R): 31.8 dB
- Left (L): 29.3 dB

**ABG:**
- 2k: Right (R): 19.0 dB, Left (L): 19.3 dB
- 4k: Right (R): 20.8 dB, Left (L): 21.1 dB

**PTA:**
- 2k: Right (R): 30.0 dB, Left (L): 34.8 dB
- 4k: Right (R): 36.3 dB, Left (L): 45.5 dB

**Bone Conduction:**
- Right (R): 15.5 dB, Left (L): 16.3 dB

**Tinnitus:**
- Right (R): No Tinnitus
- Left (L): No Tinnitus

**Hearing Status:**
- Right (R): Normal hearing
- Left (L): Normal hearing