SURGEON: Ravi Ramalingam
KKR ENT Hospital & Institute
Chennai (India)

TYPE OF SURGERY: Cochlear Implantation

PLANNED SURGERY: Rightsided surgery for a 3 year old, with Advanced Bionics Ulra with Mid Scala implant

SURGICAL TECHNIQUE: Classic postaural approach with posteriori tympanotomy and round window insertion
Clinical history:

- Three year old baby boy presented with lack of response to sound and lack of speech (Informant- Mother)
- Born to non-consanguinous marriage, full term normal delivery, with no pre-/intra-/post-natal complications.
Audiometry:

- Behavioral observation audiometry: Bilateral profound hearing loss
- Impedence audiometry: Bilateral ‘A’
- OAE: Suggestive of outer hair cell dysfunction
- BERA: Bilateral profound hearing loss
CASE 1/2
(08h15 - 09h15)
Monday May 13th 2019

SURGEON:
Antonio della Volpe
Santobono Pausilipon Children’s Hospital
Naples (Italy)

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: MedEl Synchrony Flex26 in Cochlear hypoplasia (Right side)

SURGICAL TECHNIQUE: Cochlear Implant Standard Technique

University Hospital Santobono Pausilipon
Naples, Italy
Clinical history:

Patient: C.N - DOB 31 March 2016
Pathology: Congenital Profound Bilateral Hearing loss
Audiological evaluation

(ABR – Ecogh)
Hypoplasia of the Spiral canal of the cochlea and the Modiol, bilateral dysplasia of the vestibulo with aplasia of the upper and posterior semicircular canal.
Imaging MRI:

Bilaterally hypoplasia of cochlear nerves
Medel Otoplan Report:

Implant Medel new Array Flex26
New Marker green Color
Dimension 26mm
Flex Array: Soft Surgery
Structure Preservation
Medel Otoplan 3D Reconstruction

Key Information:
- Paroxysmal and 3D reconstruction was requested for the Right ear.
- Clinical consideration a Flex26.

Discussion:
- Cochlear Hypoplasia with 1/3 size of the cochlear promontory.
- According to CT Scan, the total length measures ~60mm.

CT Scan Right EAR

University Hospital Santobono Pausilipon
Naples, Italy

The 14th LION Global Broadcast
May 13, 2019
SURGEON: Henryk Skarzinski
World Hearing Center
Warsaw (Poland)

CASE 112
(08h15 – 09h15)
Monday May 13th 2019

TYPE OF SURGERY: Cochlear implantation

PLANNED SURGERY: Med-El flex 24 (Right ear)

SURGICAL TECHNIQUE: round window approach technique
Clinical history:

17 yo girl, bilateral sensory neural hearing loss since childhood.

Tinnitus

HA bilateral user since 10, no benefit in the last year

No comorbidities
Audiometry:
SURGEON: Rolf Salcher
University Hospital Hannover (Germany)

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: Med-El Synchrony Flex26 implantation

CASE PRESENTATION WILL BE MADE ONLINE
SURGEON: Joachim Müller
University Hospital
Munich (Germany)

TYPE OF SURGERY: Cochlear implantation left ear

PLANNED SURGERY: 2nd stage of Standard Cochlear Implantation with deep insertion, MED-EL flex soft or standard, maybe with pin option

SURGICAL TECHNIQUE: Revision Mastoidectomy, facial recess, deep insertion, implant bed, maybe for implant with pins
Clinical history:

2y 2m old boy, profound hearing loss from birth, syndromal disease
Hearing Aids since age 6 months
April 2019 planned for cochlear implantation
Surgery modified to a staged procedure
because intraoperative findings of chronic mastoiditis
(compatible with occult baby mastoiditis)
Audiometry:

[Chart showing audiometry results]
**SURGEON:**
Franco Trabulzini
Meyer Children’s Hospital
Florence (Italy)

**CASE 1/1**
(08h30 – 09h45)
Monday May 13th 2019

**TYPE OF SURGERY:** Cochlear implant surgery

**PLANNED SURGERY:** Bilateral cochlear implantation (“Cochlear”)

**SURGICAL TECHNIQUE:** Transmastoid facial recess approach in IP type II (Mondin) - EVA Syndrome
Clinical history:

W.L., 18.05.2017. Male

Bilateral progressive SNHL in malformed inner ear
Audiometry:
IP-II (Mondini Deformity)
Carlo Mondini 1791

- 20% of cochlear malformations
- Definition:
  1. Modiolar defect (Cystic cochlear apex)
  2. Minimally dilated vestibule
  3. Large vestibular aqueduct
Imaging:
SURGEON: Sherif Khalil
University Medical College
London (UK)

CASE 1/1
(09h45 – 10h45)
Monday May 13th 2019

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: Left Cochlear Implantation (Advanced Bionics Slim J Array) – Left

SURGICAL TECHNIQUE: Left translabyrinthine / Round window approach
Clinical history:

- Bilateral end stage Meniere’s, no recent severe attacks
- Betahistine
- Last used phone 3 years ago
- Realistic expectations
- Occasional tinnitus
- Balance has been poor worse in the dark
- PMH:
  - Right endolymphatic sac decompression,
  - Left grommet, intratympanic steroid injections
Audiometry:

Speech tests:
- BKB in quiet: 6%
- AB Words P = 18%, W = 7%
- CUNY – L/R alone 14%, L/R + Left Bi-cros HA = 55%
SURGEON: Miguel Aristegui
University Hospital Gregorio Marañón
Madrid (Spain)

TYPE OF SURGERY: Subtotal proctectomy

CASE PRESENTATION WILL BE MADE ONLINE
SURGEON: Aarno Dietz
University Hospital
Kuopio (Finland)

TYPE OF SURGERY: Cochlear implantation

PLANNED SURGERY: Med-El Synchrony Flex²⁶ (Right ear)

SURGICAL TECHNIQUE: Transmastoid-posterior tympanotomy in local anesthesia
Clinical history:

47-year old woman with acute sudden deafness in the right ear

MRI scanning:
- right ear and the internal auditory canal normal

Incidental finding of intracanalicular schwannoma (4 mm) in the left ear
Audiometry:

- No speech recognition in her right ear
- Hyperacusis & tinnitus
- Difficulties in sound localization, background noise and music perception
- Hearing aid trial with contralateral routing of signal (CROS)
Treatment:

Schwanomma: wait & scan (left ear)

Cochlear implantation right ear

3 Tesla compatible device

Planned Insertion depth angle around 500 degrees
  calculated from the pre-op scans (linear insertion depth around 25-26 mm)
SURGEON: Jan Christoffer Lüers
University Hospital
Cologne (Germany)

TYPE OF SURGERY: Cochlear implantation

PLANNED SURGERY: Cochlear implantation (MedEl Synchrony, Flex28) (Right ear)

SURGICAL TECHNIQUE: Mastoidectomy (CWU), posterior tympanotomy, CI electrode insertion via round window
Clinical history:

- unilateral deafness and tinnitus due to sudden sensory hearing loss in 2017
- otherwise healthy 36 year old woman
- needs bilateral hearing in her job for demanding listening situations (customer discussions, team meetings)
Audiometry:

- **BERA** (nearly click-evoked)
- ABR (2-4 kHz) up to 100 dB HL,
- reproducible low-chirp ABR at 500 Hz (100 dB)
Imaging:
SURGEONS: Thomas Somers, Tony Van Havenbergh
European Institute for ORL &
Antwerp Skull Base Team
St Augustinus Hospital
Antwerp (Belgium)

CASE 1/1
(08h30 – 09h45)
Monday May 13th 2019

TYPE OF SURGERY: Removal of vestibular schwannoma

INDICATION: Left growing vestibular schwannoma after initial wait and scan

SURGICAL TECHNIQUE: Retro-sigmoid approach under facial and auditory nerve monitoring
Clinical history:

History: Male, 56 years old
- Progressive hearing loss since childhood, lately more pronounced on the left
- Occasional L Tinnitus, Light imbalance
- Otoscopy: R and L normal
- Audiometry: bilateral SNHL but more pronounced on the L side
- Speech audiometry: 80% SD at 60 dB L side
- VNG: Hyporeflexia 57% L side
- BERA: no reproducible response at 100 dB L side
- MRI: Initially managed by wait and scan, growing L sided CPA tumor:
  - 7/2018: 18x17x13 mm
  - 1/2019: 23x16x15 mm
Audiometry: bilateral SNHL but more pronounced on the Left side.
SURGEON: Witold Szyfter, Wojciech Gawęcki
University Hospital
Poznan (Poland)

TYPE OF SURGERY: Cochlear implantation left ear

PLANNED SURGERY: Nucleus 532 or 522

SURGICAL TECHNIQUE: (Retroauricular approach, posterior tympanotomy, cochleostomy or round window insertion of the electrode)
Clinical history:

Progressive, bilateral hearing loss due to Meniere disease
Audiometry:

Right ear – 70, 65, 65, 65, 70 dB
Left ear – 85, 80, 80, 90, 95 dB

Speech audiometry:
Right ear – 60%
Left ear – 0%
Imaging:

HRCT of the temporal bones
Good pneumatization of the temporal bone, patent cochleas and tympanic cavities
SURGEON:  
Antonio della Volpe  
Santobono Pausilipon Children’s Hospital  
Naples (Italy)

CASE 2/2  
(11h15 – 12h15)  
Monday May 13th 2019

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: Cochlear Implant EVO/Oticon (Left ear)

SURGICAL TECHNIQUE: (Cochlear Implant Surgery Standard Technique)
Clinical history:

Patient: S.M. - DOB 12 November 2014
Pathology: Congenital Profound Bilateral Hearing loss
Hearing Aids from the age of two
Audiometry:

The amplitude and latency of Wave V are observed and recorded at high intensity levels (100dB) with tone burst and CE Chirp stimuli.
SURGEON: Aarno Dietz  
University Hospital  
Kuopio (Finland)

TYPE OF SURGERY: Cochlear implantation

PLANNED SURGERY: Advanced Bionics HiRes SlimJ (Right ear)

SURGICAL TECHNIQUE: Modified suprameatal approach in local anesthesia
Clinical history:

50-years old woman with Rieger syndrome associated glaucoma, which had led to blindness in both eyes.

Slowly progressive sensorineural hearing loss beginning at age of 7 years.

Profound hearing loss in the right ear and moderate hearing left ear.

No benefit from HA in the right ear, no speech perception.
Audiometry:
Treatment

Cochlear implantation right ear

Suprameatal approach due to narrow facial recess and non-developed MACS

CAVE: abnormal vestibular aqueduct → Gusher large emissary vein

Local anesthesia
SURGEON: Rolf Salcher
University Hospital Hannover (Germany)

TYPE OF SURGERY: Cochlear implant surgery

PLANNED SURGERY: OTICON cochlear implantation in children

CASE PRESENTATION WILL BE MADE ONLINE
SURGEON: Joachim Müller
University Hospital
Munich (Germany)

TYPE OF SURGERY: Cochlear implantation

PLANNED SURGERY: most probably MED-EL Flex Soft or Standard (Right ear)

SURGICAL TECHNIQUE: Standard Technique, Use of Dummy Electrode
Clinical history:

Progressive Hearing Loss right ear since 4-5 years; left ear since > 8 y. links Hearing Aids for both ears, no HA left ear since 2 y. Rinne L+, R +/-
Diabetes mellitus, Hypertension
MRI: signs of otosclerosis
Audiometry:
CASE 1/1
(13h15 – 14h00)
Monday May 13th 2019

SURGEON: Caglar Batman
Marmara University
Istanbul (Turkey)

TYPE OF SURGERY: Bilateral Cochlear implantation

PLANNED SURGERY: Cochlear implantation - Nucleus Contour Advance Electrode (Right ear)

SURGICAL TECHNIQUE: Facial Recess - Cochleostomy

The 14th
LION Global Broadcast
May 13, 2019
Marmara University Hospital
Istanbul, Turkey
Clinical history:

- ESK, 2 years old girl
- Congenital bilateral severe sensorineural hearing loss
- The patient has been using bilateral hearing aids for 1.5 years
- Left handed
- There is no trauma, measles, jaundice, febrile convulsion or any other febrile diseases.
Audiometry:

- **Click Stimulus**
  - V. wave threshold: 100 dB nHL in the right ear, 90 dB nHL in the left ear

- **Tonal Stimulus**
  - At 500 Hz: V. wave threshold 90 dB NhL in the right ear, 80 dB NhL in the left ear
  - At 2000 and 4000 Hz: V. wave threshold: bilateral 100 dB nHL

- Immitansmetry: Bilateral type A tympanogram.
Case 1/1
(13h00 – 14h00)
Monday May 13th, 2019

Surgeon:
Robert Mlynski
Rostock University Medical Center
Dept. of Otorhinolaryngology. Head and Neck Surgery, "Otto Kœrner"
Rostock (Germany)

Type of Surgery: Cochlea implantation

Planned Surgery: Cochlear CI622 (right ear)

Surgical Technique: Posteriortympanotomy
medical history:

- progressive hearing loss on bilateral due to meningitis at age of three
- cochlea implantation left side 10/18 (Cochlear CI522, RW-insertion)
audiometry:

- pure tone thresholds
- speech perception left ear
  6 month after first fitting
Imaging:
- CT scan
- Stenvers view
- MRI preoperatively
**SURGEON:** Jan Christoffer Lüders
University Hospital
Cologne (Germany)

**TYPE OF SURGERY:** Cochlear implantation

**PLANNED SURGERY:** Cochlear implantation (Cochlear Nucleus, Slim Straight electrode) (Right ear)

**SURGICAL TECHNIQUE:** Mastoidectomy (CWU), posterior tympanotomy, exploration round window / cochleostomy, CI electrode insertion
Clinical history:

- Traumatic deafness after head accident with temporal bone fracture and cochloar involvement in 2016
- No benefit from conventional hearing aids
- Occasionally dizziness during movements
- Patient reports multiple problems in his job (fork-lift driver) because of his deafness
- Chronic alcoholic, detoxification planned but patient wants CI first as he feels majorly impacted by his hearing loss
Audiometry:

CI surgery

BERA: mABR
ECOG: CAP threshold 95 dB HL (Click)

speech audiometry (left side)
**Imaging:**

**CT scan:** Fracture line running through the proximal part of the cochlea basal turn

**MRI:** Fluid filled inner ear
SURGEON:
Thomas Lenarz
University Hospital
Hannover (Germany)

TYPE OF SURGERY: Vestibular schwannoma resection

CASE PRESENTATION WILL BE MADE ONLINE