5. COCHLEAR IMPLANT IN A 10 MONTHS OLD PATI ENT

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Introduction: World Health Organisation declares that over 5% of the global population, 32 million children included, suffer from disabling hearing loss, meaning a loss greater than 30 decibels in the better hearing ear in children.

Objective: The purpose of this study is to present the case of the youngest bilateral cochlear implant receiver in Romania and the correlations between the imaging and surgical findings.

Clinical case: This is a case report of a female patient aged 10 months suffering from bilateral profound sensorineural hearing loss implanted bilaterally with Cochlear™ Nucleus® 6 Implant at the Otorhinolaryngology Clinic in Tirgu Mures, Romania on 19th October 2015. According to the medical history of the patient, the mother stated to have observed bilateral hearing loss and attention deficit, the disease being confirmed through Auditory Steady State Response (ASSR), audiogram, tympanogram and cranial computer tomography. The physical examination did not reveal any pathological change. The axial computer tomography examination with 5 mm pace, 2,5 mm reconstructions in encephalic and skeletal regime showed no apparent pathological modifications. The surgical procedure started with the bilateral infiltration of the retroauricular skin with adrenaline and saline, incision of the skin, bilateral mastoidectomy, observing the incus and the facial nerve. Using the intraoperative facial nerve monitor, any damages to the facial nerve were avoided. The bilateral posterior tympanotomy procedure made it possible to observe the round window niche. In order to introduce the electrodes of the cochlear implant, a perforation through the round window membrane had to be made, sealing it with pieces of muscle. The functionality of the cochlear implant was verified, afterwards, reconstructing the anatomical plans, suturing bilaterally the incision and applying sterile bandages.

Results: Both findings, the imaging and the surgical ones, were concordant, no pathological modifications were found that could have discomforted the cochlear implantation.

Conclusion: This is the first case of an infant patient under 12 months suffering bilateral cochlear implantation in Romania, with activation of the implant after 7 weeks from implantation, and having a favourable outcome subsequent to the surgery.

Keywords: cochlear implant, sensorineural hearing loss, bilateral hearing loss.