Cochlear implants surgery in congenital middle and inner ear malformations in children

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Introduction:
Cochlear implantation in children with severe hearing loss in the cases of middle and inner ear malformation is not easy from surgical point of view, but can be carried out by experienced otosurgeons.

Aim:
The aim of the study was to show intraoperative problems and findings and compare hearing results of cochlear implantation in children with middle and inner ears malformation.

Material and Method:
Our method of choice of treatment of severe hearing loss in children is cochlear implantation, even in cases with different malformations of the ear. The analysis was performed in a group of 57 children; observation period was minimum 1 year. The results were assessed in about 1 month, 3 months, 6 months and 1 year after fitting the implant speech processor, in accordance with the follow-up program adopted in our Institute. Surgical procedure was preceded by CT and in some cases CT and MRI investigation. We observed some perilymphatic gushers and oozers, and we have used various kinds of cochlear implants and electrode arrays.

Results:
The acoustic results are quite good but depends on malformation type. We have no observed any severe complications (e.g. facial nerve palsy or meningitis) after surgery.

Conclusions:
Our results of cochlear implant surgery in patients with middle and inner ears malformation shown, that is worth, from audiological point of view, and not so risky for patients method of treatment.