

C3-4 Cochlear implantation in malformed cochleas technique, intermediate and long term results

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The paper aims to evaluate the effectiveness of Cochlear Implantation in patients with significant cochlear malformations like incomplete partitions, common cavities, hypoplastic cochleas or rudimentary otocysts.

The data of 50 such patients implanted at the Universities of Zürich and Hannover were analysed (follow up minimum 18 months). A special focus were the intermediate and longer term rehabilitation results. Specially 40 patients where FDA testing has been performed (in addition to local tests) postoperatively were analysed in detail. To evaluate these patients an age- and sex- matched group of children without inner ear malformations was selected to evaluate the relative results in comparison to a "normal" population.

8 patients had marked syndromas 6 of them Charge like associations, various were multihandicapped. In 17 cases a massive gusher was found. In ten cases a very unusually located or split facial nerve was identified showing that intraoperative facial nerve monitoring and X-rays should be available. Five footplate defects were observed, one of the causing a postoperative meningitis that was treated successfully.

Until present none of the children suffered a facial nerve injury or another late major complication except the one child mentioned above. Rehabilitation results in average were significantly lower and often delayed as compared to the "normal" group. Clear negative factors were multiple handicaps, late implantation, difficult social setting, autistic behavior and the type of malformation - with incomplete partitions being usually favourable. Based on the intermediate and long term results criteria for and against implantation into a malformed cochlea will be presented.

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C3-5 Cochlear implants surgery in inner ear abnormalities

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C3-6 Cochlear implant in malformations of the inner ear – diagnosis and management

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C3-7 Cochlear implant results in postmeningitic deafness

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Meningitis is an important cause of deafness and in some studies has been associated with poorer outcomes following cochlear implantation. Up to now more than 480 patients implanted under the Iran cochlear implant center program, nineteen were deafened as a result of meningitis. We compare cochlear implant results in these patients with a non-meningitis etiology. The average scores achieved on auditory and speech perception tests by the meningitic prelingual group were similar to those achieved by non-meningitic prelingual patients.

The average scores achieved on perception tests by the postlingual meningitic group were poorer than those achieved by postlingual non-meningitic patients. poorer outcomes were more commonly associated with cochlear ossification. Overall performance of cochlear implant was worse in postmeningitic deafness than other etiologies.

Key words: Cochlear Implants; Meningitis

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