

Auditory and Language Skills Development after Cochlear Implantation in Children with Multiple Disabilities

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Abstract : BACKGROUND: Cochlear implantation (CI) in children with additional disabilities can be a fundamental and supportive intervention. Although, there may be some positive impacts of CI on children with multiple disabilities such as better outcomes of communication skills, development, and quality of life, the families of those children complain from the post-implant habilitation efforts that considered as a burden. OBJECTIVE: To investigate the outcomes of CI children with different co-disabilities through using the Meaningful Auditory Integration Scale (MAIS) and the Meaningful Use of Speech Scale (MUSS) as outcome measurement tools. METHODS: The study sample comprised 25 hearing-impaired children with co-disability who received cochlear implantation. Age and gender-matched control group of 25 cochlear-implanted children without any other disability has been also included. The participants' auditory skills and speech outcomes were assessed using MAIS and MUSS tests. RESULTS: There was a statistically significant difference in the different outcomes measure between the two groups. However, the outcomes of some multiple disabilities subgroups were comparable to the control group. Around 40% of the participants with co-disabilities experienced advancement in their methods of communication from behavior to oral mode. CONCLUSION: Cochlear-implanted children with multiple disabilities showed variable degrees of auditory and speech outcomes. The degree of benefits depends on the type of the co-disability. Long-term follow-up is recommended for those children.

Keywords : children with disabilities, Cochlear implants, hearing impairment, language development

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