A Retrospective 6-year review on Vestibular symptoms in Paediatric LVAS post-Cochlear implantation

Dr. Ashish Alappatt¹, Dr. Konstance Tzifa², Ms. Kate Hanvey³

Conclusion

Bilateral Cochlear Implantation, simultaneous or sequential is safe and effective in children with Large Vestibular Aqueduct Syndrome (LVAS). However, there is an association with post-operative vestibular problems which can last longer than usual in the Paediatric population. Cochlear Implantation teams need to be aware for consent purposes and parental information.

Objectives

The association of cochlear implantation and post-operative Vestibular problems is well known¹-³. LVAS is the most common imaging abnormality in paediatric hearing loss². This review aims to report our experience in Paediatric Cochlear implantation in large vestibular aqueduct syndrome (LVAS) and attempt to evaluate the post-operative balance symptoms at the Birmingham Children’s Hospital (The Midlands Hearing Implant Programme – Children’s service).

Methods

We performed a retrospective review of cases coded to LVAS over a period of 6 years commencing from January 2012. During the study period 285 children were implanted of which 15 children had pre-operative radiological diagnosis of LVAS. A radiological review of the scans, case notes analysis of the intra-operative findings, post-operative symptoms and course of management was conducted.

Results

Fifteen Children with LVAS and profound hearing loss had cochlear implantation. Ten children (66.6%) had bilateral sequential whilst the rest 5 (33.3%) had bilateral simultaneous. Intra-operative bilateral C.S.F gushers were identified and repaired in 6 children (40%), of which 4 (26.6%) had post-operative vestibular symptoms. Three children (20%) with LVAS had serious symptoms dizziness, nystagmus and loss of head control (2) requiring longer stay and conservative management including physiotherapy. All three had bilateral CI and eventually completely recovered.

References