Failure of cochlear implant device in postoperative period: Our experience

Simple Patadia
Sanjay Gandhi Post Graduate Institute of Medical Sciences, India

Introduction: Cochlear implants are one of the most successful implants in the world. However, any implantation surgery is prone to considerable risk of failure (4-8% in literature). Our experience in dealing failure of cochlear implant devices is shared in this paper.

Materials & Methods: A retrospective study of 250 patients (201 children, 41 adults), with normal cochlea, at a tertiary care center, from June 2004 to June 2014, was done. All cases were implanted multichannel devices via Veria technique of cochlear implant surgery. Preoperative assessment, surgical considerations and postoperative audio-logical outcomes were analyzed. Preoperative and postoperative audio-logical outcomes were analyzed using Category of Auditory Perception (CAP) Score and Speech Intelligibility Rating (SIR) Score.

Results: Rate of re-implantation was 2.8%. The causes of revision cochlear implant surgery were hard device failure (n=3), surgical complications (n=2), magnet displacement (n=2), soft failure (n=1), electrode extrusion (n=1). In one patient, recurrent cutaneous infection on the implanted site ultimately resulted in re-implantation in the opposite ear, after multiple surgical interventions on the same side. The preoperative and postoperative CAP and SIR score showed significant improvement in postoperative period with p<0.05 as compared with paired t test.

Conclusions: Preoperative counseling for device failure should always be emphasized. There is a high surgical success rate in RCI with preservation or improvement in preoperative auditory performance.

Biography
Simple Patadia completed her MBBS (2010) and MS ENT (2013) from the reputed BJ Medical College, Ahmedabad (registered under Dr. Rajesh Vishwakarma). She joined her senior residency in Neuro-otology in the department of Neuro-surgery at Sanjay Gandhi Post Graduate Institute of Medical Sciences in Jan 2014. She has special interest in Neuro-otology and Endoscopic Skull Base Surgery and has presented many papers in national conferences.

simplepatadia@gmail.com

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