Long Term Outcome On Spoken Word Recognition Ability Of Young Children With Cochlear Implants

Kathy Yuet-sheung Lee*, Charles Andrew van Hasselt

Division of Otorhinolaryngology, Department of Surgery, The Chinese University of Hong Kong.

Abstract

Objective: To study the effect of age at implantation and duration of implant use on the performance of spoken word recognition of paediatric cochlear implantees in a tonal language setting over a period of five years.

Study Design: 64 children, implanted at age from 1;01 to 14;09, were divided into three age groups. They were tested on the open-set word recognition ability at seven time intervals from pre-operation to five-year post-surgery.

Results: The factor of implant experience was significant in children's spoken word recognition across the three age groups ($p < .01$). Children implanted below the age of three caught up with the performance of the older children at 12 months following implantation.

Conclusion: Continuous improvement in spoken word recognition performance was noted in all children irrespective of their age at implantation. Children implanted below the age of three improved at a slower rate before one full year of implant use. By two-years of implant use, the performance of the young children had bypassed the older children and sustained the highest scores throughout to five years post-operation.

Keywords: Cantonese; word recognition; age at implantation; long-term outcome; implant experience.

* Corresponding author: Kathy Y.S. Lee, Ph.D. Tel: (852) 2632-3310. Fax: (852) 2632-4677

E-mail address: kathy-lee@cuhk.edu.hk.

Division of Otorhinolaryngology, Department of Surgery, Chinese University of Hong Kong,

Prince of Wales Hospital, Shatin, Hong Kong, SAR.