

Does early sign language input make a difference on deaf children with Auditory Brainstem Implants?

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Auditory Brainstem Implant (ABI) has become one of the options for deaf children with no cochlear nerve or with cochlear disorders that could not benefit from a Cochlear Implant (CI) (Colletti & Shannon, 2005). The perceptual outcomes of ABI vary among individuals (Pallares & Diamante, 2011), non-tumor ABI recipients showed to have some benefits in speech perception and environmental sound detection, but they are still facing risk of inaccessibility of linguistics input sufficient enough for their oral language development.

Recent advancement in research on sign linguistics and sign language acquisition has enabled us to reconsider the possibility that signed language may support spoken language development, no matter in their oral or written form. This case study examined the language development of two deaf children with ABI, one received sign language exposure at the early age at 1;3, and another received sign language late at 5;6.

With a similar chronological age of 6;7 and 6;8, both KC and MY are born to hearing parents. They were profoundly deaf, and they received their ABI surgery at 2;8 and 3;5 respectively after a few months trial of CI.

The assessment results of KC and MY were compared in: i) their oral language abilities including speech perception, receptive vocabulary, receptive and expressive language in Cantonese; ii) their vocabulary and grammatical knowledge in Chinese; and iii) their grammatical knowledge and narrative skills in Hong Kong Sign Language (HKSL). Results showed that KC had similar speech perception, receptive vocabulary and language comprehensive abilities as compared to that of MY. KC had a better vocabulary and grammatical knowledge in written Chinese than that of MY. Finally, when we considered their verbal expression, KC was found to have a much superior performance than that of MY. At the chronological age of 6;10, MY had a language age of 2;7, but KC showed to have a very positive growth in his oral language expression after having been admitted to the SLCO Programme.

With an early input of sign language, KC has developed a certain level of sign

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language skills in HKSL, but MY as a late learner of HKSL, is still struggling with the language. This preliminary study on deaf children with ABI in a sign bilingual and co-enrollment setting brought to our attention that early sign language input does not hinder their spoken language development. Enhanced signed language development seems to associate with more positive growth in spoken language development of a deaf child in a sign bilingualism and co-enrollment setting.

References

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