Verbal and conceptual vocabulary development in Czech-learning children with cochlear implants

Michaela Svoboda & Kateřina Chládková

Institute of Psychology, Czech Academy of Sciences; Faculty of Arts, Charles University; Faculty of Medicine in Hradec Králové, Charles University

A cochlear implant (CI) is a neuroprosthetic device that provides hearing to individuals with sensorineural hearing loss. Especially in prelingually deaf children, its contribution to successful L1 acquisition is undeniable, although language outcomes vary widely within this population. The objective of our study is to assess the vocabulary development of implanted children of hearing parents in spoken Czech and in Czech sign language and to identify some of the factors that may contribute to the variation in language outcomes. Following Thal et al. (2007) who showed that the American-English CDI provides valid measures of language development in CI children throughout the first three years post-implantation, we use the Czech adaptation of MacArthur-Bates CDI:WS (Smolík et al. 2017). We adjusted the questionnaire to include answer options "says", "says and signs", "signs". The questionnaire is aimed at early implanted children whose hearing age (HA) is 16 to 30 months. The questionnaires are being completed online by parents in quarterly intervals. To date we have collected data from fifteen children in a first session, seven of whom already contributed data also in a second session (mean age 45.5 months; HA 24 months at first assessment; mean age at first CI surgery 21 months). Data collection is still underway, by the time of the conference we expect to have data from at least one session from 30 children, with a second or even a third session from approximately half of them. The preliminary data confirm the great variability in outcomes observed in CI children acquiring other languages, with 2 children out of the current 15 performing above the 98th percentile of the hearing population matched for HA. The data will be discussed in more depth at the conference, following a quantitative analysis of the contributing factors and a qualitative inspection of the individual trajectories.