Lingual movement characteristics of children with cerebral palsy

I. Nip, C. Arias, K. Morita, H. Richardsons

Many children with CP have speech intelligibility deficits, however, little is known about the speech movement characteristics of these children, particularly about the tongue. The tongue movements of six children with CP and six age- and sex-matched peers will be recorded during syllable, word, and sentence repetition tasks loaded with alveolar consonants. Kinematic characteristics, including maximum speed, path distance, duration, and speech movement stability, of the tongue tip will be reported. Preliminary data from 4 children with CP and 3 age- and sex-matched peers indicate that children with CP have faster speeds and greater path distances than their typically-developing peers. In addition, children with CP have reduced speech movement stability and longer durations of movement in comparison to their peers. These findings suggest that children with CP are inefficient with their lingual movements during speech production, similar to findings about jaw and lip movements in this population.