

Influence of AAC on quality of life in children with cerebral palsy - a pilot study



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CONCLUSIONS

Our preliminary results point towards an impact of the supply with speech generating devices (SGD) on health related quality of life (HRQL) in children with cerebral palsy (CP) and dysarthria. This might correspond to better communication abilities, represented by "communication and social interaction" section of the Caregiver Priorities and Child Health Index of Life with Disabilities Questionnaire (CPCHILD®). The data may underline the importance of an adequate supply of these patients with SGD and encourage further investigations in a larger population.

AIM

CP is caused by infantile brain damage. HRQL in patients with CP is considered to be associated with severity of communication impairment. Dysarthria is a speech impairment, due to the coordination impairment of speech and breath muscles. The present controlled pilot study aims to evaluate the association of supply with SGD and HRQL in severely affected children and adolescents with CP and dysarthria, according to Gross Motor Function Classification System (GMFCS) and Communication Function Classification System (CFCS) Level III -V.

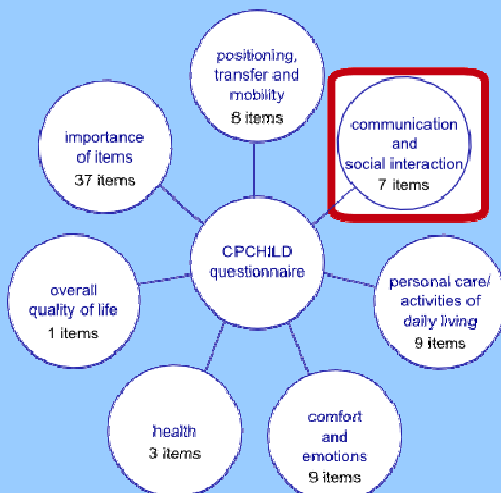


Figure 1: Single domains of the CPOCHILD questionnaire

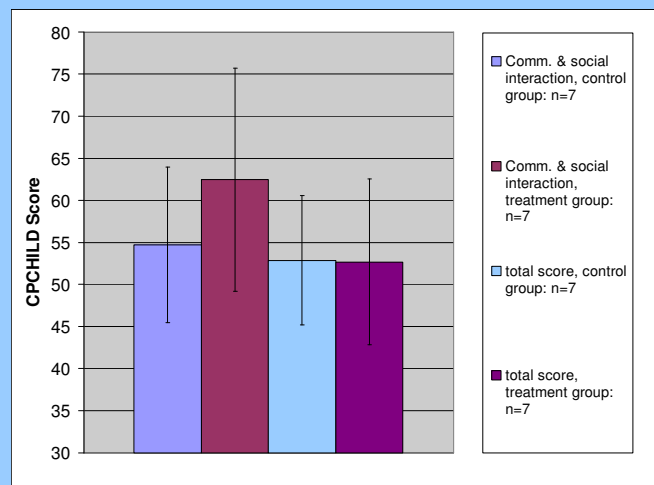


Figure 2: Results of comm. & social interaction section and total score of treatment and control group (Mean ± SD)

METHODS

- Patients: n= 14
- Treatment group with SGD (A): n=7
- Control group without SGD (B): n=7
- Evaluation instrument for HRQL: CPOCHILD® questionnaire

Inclusion criteria:

- children aged 2-18 years with CP,
- GMFCS Level III-V,
- dysarthria, CFCS Level III-V

RESULTS

We investigated n=14 patients with CP, aged 7 to 19 years (12 ± 3.4 years).

Analysis of "communication and social interaction" section revealed higher HRQL in patients with SGD (group A: mean item Score: 62.45 ± 13.24) as compared to group B (mean item Score: 54.69 ± 9.25). Analysis of total score of CPOCHILD® questionnaire displayed an item score of 52.69 ± 9.87 in group A and 52.86 ± 7.66 in group B.

LITERATURE

- Hidecker MJ1, Paneth N, Rosenbaum PL, Kent RD, Lillie J, Eulenberg JB, Chester K Jr, Johnson B, Michalsen L, Evatt M, Taylor K. (2011). Developing and validating the Communication Function Classification System for individuals with cerebral palsy. *Dev Med Child Neurol.* 2011 Aug;53(8):704-10
- Jung NH, Brix O, Bernius P, Schroeder AS, Kluger G, Beyerlein A, Weir S, von Kries R, Narayanan UG, Mall V, Berweck S (2014) German translation of the Caregiver Priorities and Child Health Index of Life with Disabilities questionnaire: test-retest reliability and correlation with gross motor function in children with cerebral palsy. *Neuropediatrics.* In print