

**P37: A New Concept Of Functional Integrative Physiotherapy In Children With Congenital Disorder Of Glycosylation**

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Objective: We conducted the trial to asses the effect of a new physiotherapeutic concept on the mobility in patients with a Congenital Disorder of Glycosylation (CDG). The main symptoms of this rare disease are muscular hypotension, mental retardation and atrophy of the cerebellum. The rehabilitation concepts starts with an training as inpatients for 2 weeks. During this time the patients receive 4h of intensive physiotherapy per day. A combination of NDT, physio-gym, pool-therapy, treadmill-training and Whole body Vibration (WBV) is used to improve muscle function and independency in activities of daily living. After these 2 weeks the patient continues the WBV at home for 6 months. In the middle of these 6 months the patients will come back in the center for 1 week to adapt the training programme on their improved motor abilities.

Subjects: 6 patients with CDG participated in the Cologne rehabilitation concept over 6 months [f=4; m=2; median age at start 7,23 y (5,25-17,32)].

Results: Due to the heterogeneity of the motor impairment in the patients the present results are not comparative between different individuals. All patients had an individual benefit from the rehabilitation programme as shown in table 1:

1	Starts crawling, needs less help while standing
2	More independent during transfers from and into the wheelchair
3	Improves trunk stability, is can now use his wheelchair without help
4	Less falls while walking with a posterior walker; can use her wheelchair on his own for a longer distance
5	Is able to walk with hold on something, and can walk longer distances with his posterior walker
6	Can transfer in a sitting position on his own and can sit without support for longer times

No patient dropped out of the programme and their were no negative side effects during the training period. Beside the improvements in their motor functions the parents of the children reported an increase in the mental function in these children. They had an improved interaction with their parents and are more interested in their surroundings.

Conclusions: The Cologne rehabilitation programme combined with the Whole Body Vibration with the Galileo-System seems to improve motor function in children with CDG. This increase of physical fitness seems to have a beneficial influence on the mental function in the children.