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Improving effect of enhanced axial rehabilitation on trunk control deficit in children with cerebral palsy

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Method

Groups CP TD

<table>
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<tr>
<th></th>
<th>N</th>
<th>CP Childrens</th>
<th>TD Childrens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>8 (+/- 2,5)</td>
<td>8,4 (+/- 1,8)</td>
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</table>

CP and TD childrens were first compared on the TCMS and unstable sitting posturography.

Then, the performances of CP childrens were compared before and after an enhanced axial rehabilitation (EAR) of 3 months. The EAR leaded by a physiotherapist was based on exercises in different postures performed by the child each day that strongly involve the trunk to cope with balance. Exercises included unusual movements such as lumbar lordosis and scapular and pelvis belt dissociation.

Results

Enhanced axial rehabilitation during 3 months improved trunk control in seated posture for children with CP. Theses improvements where both on gross and selective trunk control as assed by the TCMS. COP Sway Area reduction attest a more accurate postural control while reduced RMS COP Instant Speed show a less energetic depense for postural control of the upper body.

The next step is to show that the improvement of axial segment postural control have a benefic effect on dynamic balance and lower lmb kinetics during gait.

References: