1H MR Spectroscopy in Cerebellar Hemisphere in Childhood

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Purpose
To analyze by proton MR spectroscopy (1H MRS) age-dependent changes of the metabolites in the cerebellar hemisphere of healthy children.

Materials & Methods
We studied by single voxel 1H MRS 23 healthy volunteers (aged 3-16 years old), presenting normal brain MR imaging. 1H MRS was performed on a 1.5 T unit (GE, LX- Horizon; Milwaukee, WI) using the PRESS and STEAM techniques in cerebellar hemispheres. The N-acetyl aspartate/creatine (NAA/Cr), choline/creatine (Cho/Cr) and myoinositol/creatine (mI/Cr) ratios were analyzed as a function age.

Results
We found positive correlation of the NAA/Cr and Cho/Cr ratios with increasing age, and the mI/Cr showed a tendency to increase with age.

Conclusion
Our data demonstrate age-dependent changes of the metabolites ratios in cerebellar hemispheres.

References