Adrenoleukodystrophy and MR Imaging: Assessment of Nineteen Cases Using Loes' Score

Lacerda, M. T. C. * Kok, F. * Costa, M. O. R. * Cerri, G. G. * Leite, C. C.
The School of Medicine of University of São Paulo, São Paulo, Brazil

Purpose
To study the MR examinations of 19 patients with adrenoleukodystrophy (ALD), using the scoring method described by Loes.

Materials & Methods
We evaluated 30 MR examinations of 19 male patients (age: 5–18 years) with ALD. Nine of them had more than one examination. All MR exams included T1- and T2-weighted images. We used the scoring method by Loes for brain MR observations. The severity of the score based on a point system derived from location and extent of CNS disease and the presence of brain atrophy.

Results
The severity score ranged from 0 to 33. Seven patients presented an increase in the severity score. The supratentorial regions more affected were: parietooccipital white matter, optic radiations, Meyel's loop, splenium of corpus callosum, and internal capsule. The brain stem was involved in 19 examinations and the cerebellum in 8 of them. Six MR examinations showed severe atrophy.

Conclusion
With the Loes' score a quantification of the disease impact in CNS is possible, that is useful to better define the natural history of ALD as well as to monitor the response to treatment.

References