EARLY CHILDHOOD PROLONGED FEBRILE CONVULSIONS, ATROPHY AND SCLEROSIS OF MESIAL STRUCTURES, AND TEMPORAL LOBE EPILEPSY: AN MRI VOLUMETRIC STUDY

F. Cendes; F. Andermann; F. Dubeau; P. Gloor; A. Evans; M. Jones-Gotman; A. Olivier; E. Andermann; Y. Robitaille; I. Lopes-Cendes; T. Peters; and D. Melanson

Neurology 1993;43:1083-1087

We performed MRI volumetric measurements of the amygdala (AM) and hippocampal formation (HF) in a group of 43 patients with temporal lobe epilepsy not controlled by optimal drug treatment. Fifteen patients (35%) had a history of prolonged febrile convulsions (PFC) in early childhood; 30 patients underwent surgery, and histopathology was available in twenty-four. The mean values of AM and HF volumes ipsilateral to the EEG focus were significantly smaller than those of normal controls. The volumetric measurements showed a more pronounced atrophy of the AM in patients with a history of PFC, although the HF volumes were also smaller in this group. Patients with a history of PFC had a higher proportion of more severe mesial temporal sclerosis (MTS) compared with those with no PFC. These findings confirm a correlation between early childhood PFC, the severity of atrophy of mesial structures, and MTS.

Free access to this article at <http://www.neurology.org/content/43/6/1083>

Comment from Gregory D. Cascino, MD, FAAN, Associate Editor: This was one of several studies published in *Neurology* indicating the importance of MRI-based structural neuroimaging in identifying hippocampal findings in patients with mesial temporal sclerosis. Imaging-detected hippocampal volume loss is shown to be a surrogate for hippocampal neuronal loss.

Neurology®

Early childhood prolonged febrile convulsions, atrophy and sclerosis of mesial structures, and temporal lobe epilepsy: An MRI volumetric study

F. Cendes, F. Andermann, F. Dubeau, et al.

Neurology 2011;76;1845

DOI 10.1212/01.wnl.0000398451.98153.85

This information is current as of May 23, 2011

Updated Information & Services

including high resolution figures, can be found at:
<http://n.neurology.org/content/76/21/1845.citation.full>

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/about/about_the_journal#permissions

Reprints

Information about ordering reprints can be found online:
<http://n.neurology.org/subscribers/advertise>

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2011 by AAN Enterprises, Inc.. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.