

compared with those without MDE, but after adjustment for stress and childhood trauma, this association disappeared. Environmental factors such as childhood trauma and stress may shape the expression of this bidirectional relationship. (Modgill G et al. **Headache** Nov 15, 2011[Epub ahead of print])

LANGUAGE-LEARNING DISORDERS

AUDITORY PROCESSING DISORDER AND CORTICAL MALFORMATION

Researchers at Departments of Neurology and Speech, University of Campinas, Brazil assessed the auditory processing function in children with language-learning impairment in relation to malformation of cortical development. Thirty-two children (19 males), aged 8-15 years, were divided into three groups: Group I included 11 children with language-learning impairment and bilateral perisylvian polymicrogyria, a malformation shown to be associated with auditory processing disorders; Group II included 10 children with language-learning impairment and normal MRI; and Group III comprised 11 normal children. All patients had an IQ>80, only 1 had epilepsy, and 5 had pseudobulbar signs. Tests of auditory processing function, including the Random Gap Detection Test and Digits Dichotic Test, showed a statistically significant difference among the group. Groups I and II showed abnormalities in auditory processing when compared with the control group, and children in Group I were more affected than children in Group II. Perisylvian cortical malformation correlates with impairment of auditory processing function. This is expressed as difficulty in phonemic awareness, verbal comprehension, writing and reading, and processing of rapid auditory stimuli. (Boscariol M, Guimaraes CA, de Vasconcellos Hage, SR, et al. Auditory processing disorder in patients with language-learning impairment and correlation with malformation of cortical development. **Brain Dev** Nov 2011;33:824-831). (Respond: MM Guerreiro. E-mail: mmg@fcm.unicamp.br).

COMMENT. Cortical polymicrogyria malformation in the perisylvian regions may be associated with auditory processing dysfunction and language and learning disabilities, including dyslexia.

LANGUAGE IMPAIRMENT, MOTOR DELAY AND ROLANDIC EPILEPSY

Researchers at the Epilepsy Center and Department of Neurology, Maastricht University Medical Center, The Netherlands investigated a correlation between language, learning and locomotor impairments in a cohort of 48 children (6.5-13 years of age; 26 boys and 22 girls) with rolandic epilepsy referred to the Epilepsy Center between 2001 and 2009. EEG recordings and neuropsychological assessments were obtained within the same week. Parents completed a questionnaire on developmental milestones, attention, language, visuospatial skills, memory, reading, writing, and math. A learning efficacy quotient was calculated by dividing the educational level by months of education x 100,