SEIZURE DISORDERS

FEBRILE SEIZURES AND FACE EMOTION RECOGNITION

Investigators at University-Hospital of Parma, Universities of Verona, Modena, and Bologna, Italy; and Epilepsy Clinic Las Condes, Santiago, Chile, studied facial emotion recognition ability in a group of 38 school-aged children with antecedent febrile seizures (FSs) and in an age- and sex-matched control group. Using Ekman and Friesen’s Pictures of Facial Affect, the basic innate emotions studied were happiness, sadness, fear, anger, and disgust. Children with abnormal visuoperceptual abilities were excluded. Children with FSs showed lower recognition scores versus controls in both matching (p<0.001) and labeling (p=0.001) facial emotions. (Cantalupo G, Meletti S, Miduri A, et al. Facial emotion recognition in childhood: The effects of febrile seizures in the developing brain. Epilepsy Behav 2013 Oct;29(1):211-6). (Response: Dr Gaetano Cantalupo, Child Neuropsychiatry Unit, Department of Neuroscience, University-Hospital of Parma, Italy. E-mail: gcantalupo@gmail.com).

COMMENT. Emotion recognition abilities may be defective in school-aged children with a history of FSs, even in those with a single simple FS. FSs may alter long-term plasticity in extrahippocampal limbic regions, such as amygdala and insular cortex. Neural networks underlying facial emotion recognition involve the visual cortices, the amygdala, orbitofrontal cortex, insula, basal ganglia, and prefrontal cortex.

In patients with medial temporal lobe epilepsy (MTLE), common and widespread deficits of emotion recognition are well recognized (Meletti S, et al. Neurology 2003 Feb 11;60(3):426-31) but the above findings in children with simple FSs are new and suggest that the FS is not entirely benign.

RESCUE MEDICATION IN CHILDREN AT RISK OF PROLONGED CONVULSIVE SEIZURES

Investigators at the Institute of Child Health, Great Ormond Street Hospital, London, and other centers in the UK and Europe, explore the adequacy of treatment of children with prolonged convulsive seizures (defined as seizures lasting more than 5 min) occurring in school to prevent progression to status epilepticus and neurological morbidity. Already known is that medication should be given as quickly as possible, and administration of rescue medication in school depends on presence of a trained caregiver. Existing national recommendations include a parent’s responsibility to request treatment for a child as needed, to provide all necessary medical information from the treating physician, and teacher volunteers responsible for administering medication should receive training from the school nurse or local health service. Areas for improvements include: 1) practical information to schools on treatment of prolonged convulsive seizures, 2) individual healthcare plan for the child, 3) a clear link between treating physician and school for each child who requires rescue medication, 4) responsible caregiver to receive specific training on rescue medication, 5) comprehensive guidance to ensure immediate treatment wherever seizure occurs, and 6) need for more information.