

hippocampal volumes than controls with intact working memory. (Beauchamp MH, Thompson DK, Howard K, et al. Preterm infant hippocampal volumes correlate with later working memory deficits. **Brain** Nov 2008;131:2986-2994). (Respond: Dr Peter J Anderson, School of Behavioural Science, The University of Melbourne, Melbourne, VIC 3010, Australia. E-mail: peterja@unimelb.edu.au).

COMMENT. Children born preterm have smaller hippocampal volumes that correlate with working memory deficits measured at 2 years of age. Further research will determine the longterm effect of altered hippocampal volumes on cognitive function of premature infants.

NEUROGLIAL HETEROTOPIA AND NASOPHARYNGEAL OBSTRUCTION IN A NEONATE

The clinical presentation, imaging, treatment, and pathology of a case of neuroglial heterotopia in the nasopharynx causing airway obstruction in a newborn are reported from Columbus Children's Hospital, OH. MRI and CT showed a cystic mass filling the nasopharynx with a midline bony defect in the sphenoid bone above the clivus. Posterior nasal endoscopy visualized the cystic lesion prior to surgical removal. Connection with CSF and subarachnoid space was excluded. At 6-month follow-up, developmental milestones were normal, and repeat CT showed no evidence of recurrence of the mass. Histopathology of the lesion showed choroid plexus, glial, and respiratory-like epithelial cells. (Husein OF, Collins M, Kang DR. Neuroglial heterotopia causing neonatal airway obstruction: presentation, management, and literature review. **Eur J Pediatr** Dec 2008;167:1351-1355). (Respond: OF Husein, 1414 N Houk Rd, Suite 208, Spokane, WA 99216. E-mail: tiffhusein@yahoo.com).

COMMENT. Reviewing the literature, the authors found reports of 30 cases of pharyngeal neuroglial heterotopia. Both CT and MRI are recommended in the assessment of nasopharyngeal masses. CT visualizes any bony deformities of the skull base, and MRI detects intracranial connections through the skull defect. Encephalocele has a similar histology but differs from neuroglial heterotopia by maintaining a connection to the subarachnoid space.

ATTENTION DEFICIT DISORDERS

NEUROANATOMICAL ABNORMALITIES IN ADOLESCENT ADHD

Twenty-four adolescents with familial ADHD and 10 control youths underwent high-resolution structural MRI, and frontal lobe gyri and caudate were compared in a study at Stanford University and other US centers. Youths with ADHD had larger right caudate and right inferior frontal lobe volumes than control subjects. An increase in left caudate volume in a subgroup of ADHD youths was correlated with decreasing functional activation in this region. The findings were thought to reflect neurodevelopmental changes specific to late adolescence in familial ADHD. (Garrett A, Penniman L, Epstein JN et al. Neuroanatomical abnormalities in adolescents with attention-deficit/hyperactivity disorder. **J Am Acad Child**

Adolesc Psychiatry Nov 2008;47:1321-1328). (Repond: Amy Garrett PhD, Department of Psychiatry, 401 Quarry Rd, Stanford, CA 94305. E-mail: agaarrett@stanford.edu).

COMMENT. Neuroanatomical abnormalities detected in patients with ADHD support the neurobiological basis for this symptom complex. The authors cite a meta-analysis of structural imaging research that indicates regions most frequently affected include total cerebral volume, caudate nucleus, splenium of the corpus callosum, cerebellum and frontal lobes. Differences in findings may be attributable to differences in age of subjects selected and the weight of hereditary compared to environmental causes of ADHD (Millichap JG. Etiological classification of attention-deficit/hyperactivity disorder. **Pediatrics** 2008;121:e358-e365). The selection of cases with familial ADHD by the Stanford group is a more homogeneous sample than some, emphasizing the neural correlates of inherited forms of the disorder. The possible influence of associated environmental factors is not excluded, however.

ADHD SYMPTOMS AND LIKELIHOOD OF CHILD MALTREATMENT

The relationship between inattentive and hyperactivity symptoms and child maltreatment was studied among a sample of 14,322 participants in the National Longitudinal Study of Adolescent Health at the Centers for Disease Control and Prevention, Atlanta, GA. The weighted percentage of respondents reporting ADHD symptoms was 8.3%. Self-reported rates of child maltreatment were 40.5% for supervision neglect, physical neglect (11.6%), physical abuse (28.4%), and contact sexual abuse (4.5%). Forty six percent reported no child maltreatment. The age of subjects sampled was 18 to 28 years (average 21.8 years). Type of maltreatment was not correlated with age. Respondents with ADHD symptoms were more likely to report maltreatment. Compared with non-ADHD subjects, those with ADHD of any type reported all 4 types of child maltreatment. The *inattentive type* was associated with elevated risks of all 4 types of maltreatment whereas the *hyperactive/impulsive type* was associated only with an increased likelihood of supervision neglect and physical abuse. The *combined type* was associated with elevated risks of physical neglect and contact sexual abuse, and a significant risk of supervision neglect. The number of reported ADHD symptoms was also associated with the severity of child maltreatment. Each additional inattentive symptom was significantly associated with elevated risks of more severe child maltreatment of all 4 types. Each additional hyperactive/impulsivity symptom was associated with an increased likelihood of more severe supervision neglect or physical abuse. (Ouyang L, Fang X, Mercy J, Perou R, Grosse SD. Attention-deficit/hyperactivity disorder symptoms and child maltreatment: a population-based study. **J Pediatr** Dec 2008;153:851-856). (Reprints: Lijing Ouyang PhD, Centers for Disease Control and Prevention, 1600 Clifton Rd NE, Mail-Stop E-88, Atlanta, GA 30333. E-mail: eop9@cdc.gov).

COMMENT. Physicians should be alerted to the potential for child maltreatment in children with ADHD. Those with the inattentive type of ADHD are particularly vulnerable. The more severe the ADHD, the greater is the likelihood of child maltreatment.