

cingulate cortices, and increased grey matter volume and concentration in the temporal lobes bilaterally and the cerebellum. The findings were consistent with a delay in cortical maturation in cortical areas involved in decision making, morality and empathy in boys with callous-unemotional conduct problems. (De Brito SA, Mechelli A, Wilke M, et al. Size matters: increased grey matter in boys with conduct problems and callous-unemotional traits. **Brain** April 2009;132:843-852). (Respond: Dr Stephane A De Brito, Institute of Psychiatry, PO Box 23, King's College, London, UK. E-mail: stephane.debrito@iop.kcl.ac.uk).

COMMENT. Contrary to previous reports of decreased concentration and volume of cortical areas in psychopathic adolescents and adults with conduct disorders, this study found increases in grey matter concentration in orbito-frontal cortex and anterior cingulate cortex in 11-year-old patients. Blair RJR, of the National Institute of Mental Health, Bethesda, MD, in an editorial, remarks on the advances in the science of a neural substrate for lack of emotion, and in driving callous behavior in boys with conduct problems. The progress is not only in tolerance for the field of neurobiology of anti-social behavior but also its sophistication. (**Brain** 2009;132:831-832). Children with callous-unemotional traits have an increased risk for anti-social behavior. A better understanding of the cause should lessen the stigma and facilitate appropriate treatment. Children with ADHD complicated by unemotional conduct disorders should receive psychiatric care to lessen the risk of anti-social behavior.

MOVEMENT DISORDERS

CLONIDINE AND LEVETIRACETAM FOR TICS COMPARED

The efficacy of clonidine and levetiracetam for treating tics in Tourette syndrome was compared in a 15-week randomized, double-blind, flexible dose, crossover study at Johns Hopkins Hospital, Baltimore, MD. In 10 subjects, ages 8-27 years, the mean Total Tic Score improved significantly with clonidine compared with levetiracetam, whereas the Yale Tic Severity Scale did not change. With levetiracetam, none of the measures showed a change. The initial dose of clonidine was 0.05 mg, twice daily, and levetiracetam 10 mg/kg/day, divided twice daily. The mean maximum dose for clonidine was 0.20 mg/day, and for levetiracetam, 1,150 mg/day. The mean Tic Score and Tic Severity Scale scores at baseline were similar in treatment groups. Sedation occurred with clonidine in 5 patients and irritability as a side effect of levetiracetam in 4. Clonidine reduced the frequency of tics but levetiracetam had no effect. (Hedderick EF, Morris CM, Singer HS. Double-blind, crossover study of clonidine and levetiracetam in Tourette syndrome. **Pediatr Neurol** 2009;40:420-425). (Respond: Dr Hedderick, Johns Hopkins Hospital, Suite 2158, 200 N Wolfe Street, Baltimore, MD 21231. E-mail: ehedder1@jhmi.edu).

COMMENT. Although this study found a statistically significant improvement in Total Tic Score with clonidine, the authors considered the benefit of limited clinical significance. Previous reports demonstrate a range of results with clonidine, from 0 to 75% reduction in tics (authors reference). As the authors comment, additional direct comparison studies, including placebo, in a larger series would be more meaningful.