

current distinction of chronic tic disorders (i.e., Tourette syndrome, chronic motor tic disorder, and chronic vocal tic disorder) into separate categories is of debatable value. Except for the socially disabling effects of vocal tics, few differences are likely between chronic tic disorders in their etiology and response to therapy. (Knight T, Steeves T, Day L, Lowerison M, Jette N, Pringsheim T. Prevalence of tic disorders: a systematic review and meta-analysis. *Pediatr Neurol* 2012 Aug;47(2):77-90). (Respond: Dr Pringsheim, Dept. Clinical Neurosciences and Pediatrics, Calgary Tourette Syndrome Clinic, University of Calgary, Alberta Children's Hospital, 2888 Shaganappi Trail NW, C4-431, Calgary, Alberta T3B 6A8, Canada. E-mail: tmprings@ucalgary.ca).

COMMENT. Meta-analysis reveals that tic disorders are more common in children than in adults, in special education populations than in general populations of children, and among boys more than among girls. Transient tic disorders are the most common type of tic disorder in children, followed by chronic tic disorders and Tourette syndrome. The higher prevalence of tic disorders in boys than in girls (4:1) is a similar gender difference to that in other developmental disorders, such as autism (4 boys to 1 girl) and ADHD that affects boys 3-6 times more often than girls.

ANTIEPILEPTIC DRUGS

EFFECTS OF TOPIRAMATE ON COGNITIVE FUNCTION

Investigators at the Universities of Minnesota and Florida determined the effect of topiramate on linguistic behavior, verbal recall and working memory using a computational linguistics system for automated language and speech analysis (SALSA). Twenty-five healthy volunteers between 18 and 50 years of age at 2 study sites received either 100 mg oral topiramate, 2 mg oral lorazepam (active control), and placebo or topiramate and placebo in a randomized, double-blind, crossover design. Neuropsychological tests, language/verbal tests, and SALSA were performed on speech samples recorded during the tests. Topiramate plasma levels that ranged from 0.23 to 2.81 mcg/ml were associated with impairment of 1) measures of verbal fluency elicited during a picture description task, 2) correct number of words recalled on a paragraph recall test, and 3) reaction time recorded during a working memory task. The novel system of automated speech and language analysis (SALSA) allows determination of drug plasma concentration and its impact on cognitive functioning as reflected in spoken language discourse. (Marino SE, Pakhomov SVS, Han S, et al. The effect of topiramate plasma concentration on linguistic behavior, verbal recall and working memory. *Epilepsy Behav* 2012 Jul;24(3):365-72). (Respond: Dr SE Marino, Center for Clinical and Cognitive Neuropharmacology, University of Minnesota, 717 Delaware Street, SE, Minneapolis, MN 55414, E-mail: marin007@umn.edu).

COMMENT. The SALSA automated language analysis in healthy volunteers is thought to establish effects of a drug on cognition, natural language and speech production in the absence of cognitive impairment associated with epilepsy and its underlying brain dysfunction. The single dose test limits ability to define chronic effects.