

ADHD Stimulants May Not Delay Male Puberty

BY DAMIAN McNAMARA

FROM THE ANNUAL MEETING OF THE
PEDIATRIC ACADEMIC SOCIETIES

DENVER – Although some studies show a delay in growth among boys taking stimulants for attention-deficit/hyperactivity disorder, the medications may not postpone pubertal onset, a new study has shown.

“Given that growth has been associated

with pubertal onset, one might hypothesize that stimulant medication might affect the onset of puberty,” Jennifer M. Steffes said at the meeting. “Few data exist, however, as to the potential association.”

Ms. Steffes and her colleagues studied a multiethnic cohort of 3,868 boys who were seen at 141 clinical practices in the SSCIB (Secondary Sexual Characteristics in Boys) study. In all, 277 (7%) were taking stimulant medication. Clinicians

received standardized training and evaluated genital development, pubic hair growth, and testicular volume for these boys (aged 6-16 years).

There were no significant differences between medicated and nonmedicated participants. The mean onset of genital growth (Tanner stage II) in the stimulant group was 9.84 years vs. 9.85 years in the nonstimulant group. The mean onset of pubic hair (Tanner stage II) in the stim-

ulant group was 11.49 years vs. 11.14 years, and testicular volume of 3 mL or greater was observed in the stimulant group at a median 10.11 years, compared with 9.80 years among those who were not taking stimulant medication.

“Our results suggest that there is no difference in age of pubertal onset between boys taking stimulant medication and their nonmedicated counterparts,” Ms. Steffes said.

“For clinicians, our research should be used as reassurance to parents – should stimulant medication be recommended – that the use of these stimulants will not delay pubertal maturation,” said Ms. Steffes, an investigator for the PROS (Pediatric Research in Office Settings) research network at the American Academy of Pediatrics.

In addition, there were no significant differences in age of pubertal onset by race or ethnicity. The study included 1,979 white, 963 black, and 926 Hispanic children. Consecutive children and adolescents who were seen for well-child visits in 2005-2010 in 41 states were recruited through practices that participated in PROS, the Academic Pediatric Association’s CORNET (Continuity Research Network), and the NMA PedsNet (National Medical Association’s Pediatric Research Network).

Participants in the stimulant cohort took the medications regularly for 3 consecutive months within the past year. Testicular volume measurements were standardized via a modified Prader orchidometer.

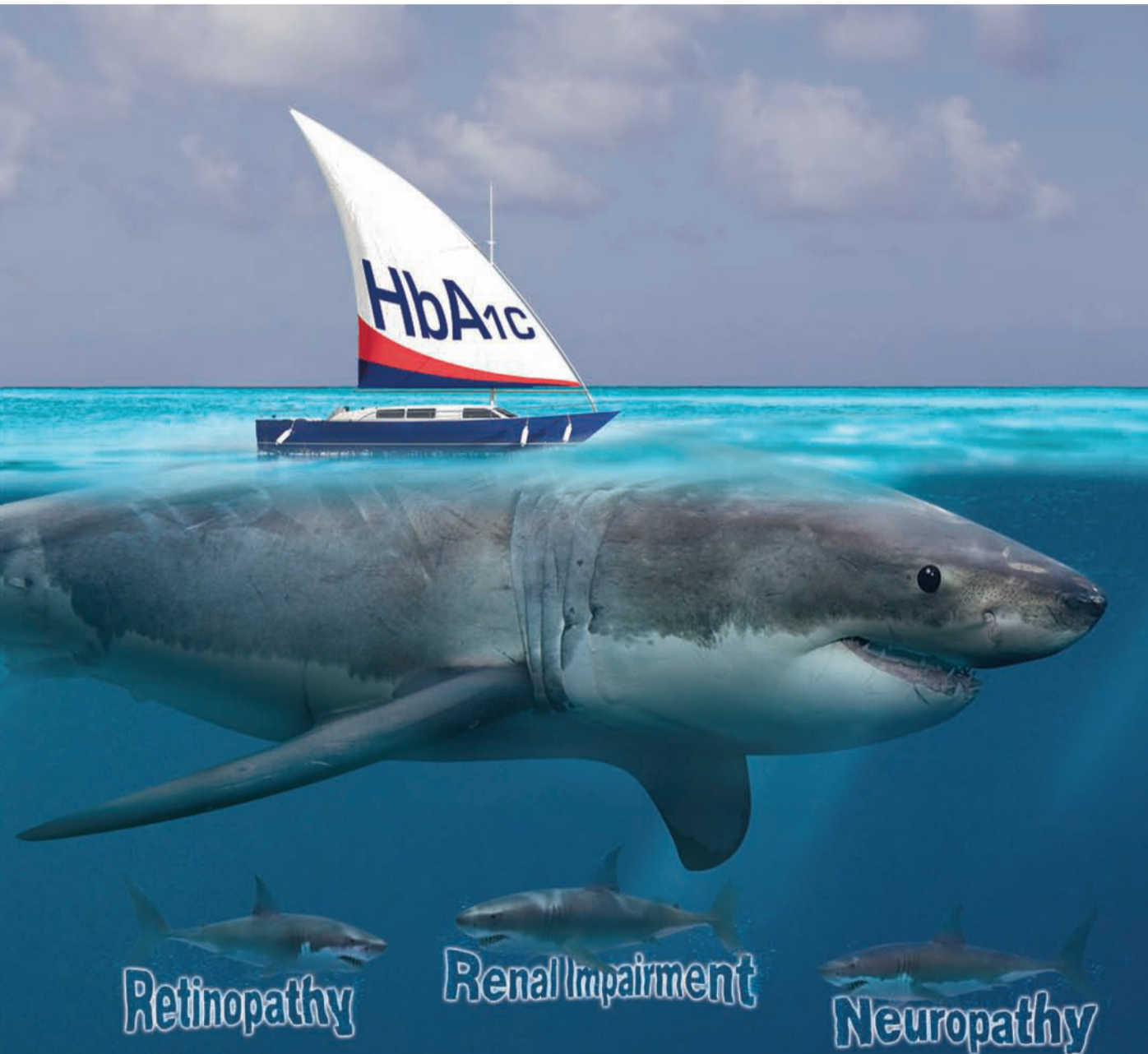
Rigorous clinician training, use of the orchidometer, and inclusion of a broadly-representative geographic sample of children are among the strengths of the study, Ms. Steffes said. Limitations include its cross-sectional design. Also, stimulant use was reported from multiple sources (chart review and self- or parent report).

A meeting attendee asked about the science behind the evidence pointing to delayed growth with stimulant medications. Ms. Steffes deferred to a study coauthor in the audience.

“There [are some] data for a number of psychoactive medications possibly altering growth hormone release,” Dr. Steven A. Dowshen said. “The problem with the studies is ... there really is inconsistency in terms of effects [of stimulants] on linear growth, although those [children] who show it tend to show a slowing of linear growth. The commonly accepted end point, though, is that eventually those kids catch up.

“That brings up the possibility, certainly to an endocrinologist, that the effects on growth might be mediated by delayed puberty. So in essence, the drug might be creating a constitutional growth delay,” added Dr. Dowshen, a private practice pediatric endocrinologist in Wilmington, Del. “One of the reasons we were interested in looking at the data from PROS was to [test] that hypothesis. And that wasn’t the case.”

Ms. Steffes said she received a research grant from Pfizer to fund this project. ■



It's important to recognize and screen for microvascular complications in patients with type 2 diabetes as early as possible.⁷ Effective management of diabetes can help prevent or slow the progression of microvascular complications.