Testosterone Doesn’t Significantly Improve Cognition, Study Finds

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CHICAGO — Exogenous testosterone, taken either alone or with finasteride for 36 months, did not significantly improve cognition in a randomized, placebo-controlled trial involving healthy older men.

The findings do little to settle the debate over the ef- fect of hormone therapy on cognition in elderly men. About half of randomized, controlled trials of testos- terone therapy in older men have shown positive effects on cognitive function, particularly spatial cognition, Dr. Camille Vaughan said at the annual meeting of the American Geriatrics Society.

She presented data from a study in which 70 healthy men, aged 65-83 years, with low levels of testosterone (less than 350 ng/dL) and normal performance on the Mini-Mental State Examination (MMSE) were random- ly assigned to receive one of three regimens: 200 mg of IM testosterone enanthate every 2 weeks with placebo pills; 200 mg of IM testosterone enanthate every 2 weeks with 5 mg of finasteride daily, or placebo in- jections and placebo pills.

At baseline, there were no significant differences in hor- mone levels between groups. Their mean age was 72 years. All patients had a MMSE score of 28 or higher, out of 30. Patients in the placebo group did have higher scores on the Spielberger State-Trait Anxiety Inventory, report- ed Dr. Vaughan, an internal medicine resident at Emory University in Atlanta, and colleagues.

Cognitive testing performed at baseline, 4 months, and 36 months included a comprehensive battery assessing at- tention, executive function, visuospatial skills, and visuo- al and verbal memory skills. Serum hormone levels also were measured at the indicated intervals.

Sixty-nine men completed baseline testing, 65 com- pleted at least 4 months, and 66 completed all 36 months. Serum total testosterone, bioavailable testosterone, and estradiol levels increased significantly in the treatment groups throughout the study period. Hormone levels did not change for the placebo group at any time.

The three groups didn’t demonstrate significant differ- ences in cognitive performance on any of the tests at the 4-month or 36-month evaluations, Dr. Vaughan said.

There was a trend in the active treatment groups toward improved performance in the Benton Visual Retention Test and in visuospatial skills on the Trail Making Tests. But scores were not significantly different from the placebo group at any time. All groups improved slightly over time on parts A and B of the Trail Making Test, but this was more likely due to the effects of practice, she said.

Further studies are warranted to determine if hormone therapy in men with preexisting cognitive impairment is beneficial, Dr. Vaughan concluded.