Low Testosterone Linked to Prostate Disease

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CHICAGO — Men with prostatic disease often present with symptoms of hypogonadism and are more likely to be hypogonadal, compared with patients who do not have prostatic conditions, Dr. Sherwyn L. Schwartz said in a poster presentation at the annual meeting of the American Association of Clinical Endocrinologists.

As part of the Hypogonadism in Males (HIM) study, Dr. Schwartz, an endocrinologist in private practice in San Antonio, looked at 391 men aged 45 or older who had prostatic disease and made appointments at 95 primary care centers over a 2-week period. Patients included 165 men with serum total testosterone levels of less than 300 ng/dL, defined as hypogonadal levels, and 226 men with normal serum total testosterone levels.

All patients had a single morning blood draw to test for concentrations of total testosterone, free testosterone, bioavailable testosterone, and sex hormone–binding globulin. Patients were surveyed for comorbid conditions and for signs and symptoms of hypogonadism. Dr. Schwartz compared study results in this group with results from the overall HIM study population.

In the overall study population, the percentage of hypogonadal men with a medical history of prostatic disease or disorder was 20%, similar to the 17% prevalence seen in eugonadal men. However, among the hypogonadal population not receiving testosterone therapy, the percentage of men with prostatic disease was 21%, which achieved statistical significance when compared with the prevalence in eugonadal men.

"Based on these observations, larger studies that examine the relationship between the occurrence of hypogonadal symptoms and the risk of hypogonadism … are warranted," he concluded. ■

Testosterone Level Affects Risk for Anemia

Low testosterone levels increase susceptibility to anemia, but may not be a sufficient causal factor for anemia in the elderly, reported Dr. Luigi Ferrucci of the National Institute on Aging, Bethesda, Md., and his colleagues.

The researchers evaluated data from the Italian InCHIANTI study, which enrolled 396 men and 509 women.

At baseline, 365 men did not have anemia, were a mean age of 74 years, and had a mean total testosterone level of 438 ng/dL.

Using the World Health Organization criteria, the investigators defined anemia as hemoglobin levels below 12 g/dL for women and 13 g/dL for men. Participants with "explained" anemia had one or more potential causes, and those with "unexplained" anemia had normal serum iron and no vitamin B_{12} or folate deficiencies.

Eleven men had explained anemia and a mean total testosterone of 355 ng/dL. Another 20 had unexplained anemia and a mean total testosterone of 332 ng/dL.

At baseline, 452 women did not have anemia, were a mean age of 64 years, and had a mean total testosterone of 64 ng/dL. Thirty-one had explained anemia and a mean total testosterone of 54 ng/dL; 26 had unexplained anemia and a mean total testosterone of 52 ng/dL (Arch. Intern. Med. 2006;166:1380-8).

Bioavailable testosterone level declined with age. Men in the lowest total and bioavailable testosterone level quartiles were 5.4 times and 13.1 times more likely, respectively, to be anemic than men in the highest quartiles. Women in the lowest bioavailable testosterone level quartile were 3.4 times more likely to have anemia than women in the highest quartile.

For a longitudinal analysis, 274 men and 337 women without anemia at baseline were reevaluated 3 years later; 23 men (8.4%) and 26 women (7.7%) had developed anemia.

Total testosterone levels were not significantly associated with anemia, but bioavailable testosterone was. Men and women in the lowest level quartiles were 4.7 and 4.4 times more likely, respectively, to develop anemia, compared with those in the higher level quartiles.

—Deeanna Franklin