Marketing, prescribing testosterone and growth hormone for aging is disease mongering

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The marketing, prescribing and selling of testosterone and growth hormone as panaceas for aging-associated problems is disease mongering. So assert Thomas Perls, MD, MPH, FACP, a geriatrician at Boston Medical Center and professor of Geriatrics and Medicine at Boston University School of Medicine; and David Handelsman, MB BS, FRACP, PhD, professor of Reproductive Endocrinology and Andrology, director of the ANZAC Research Institute, University of Sydney and Andrology Department, Concord Hospital. Their editorial is published in this month's *Journal of the American Geriatrics Society*.

Disease mongering is inventing new broader definitions of disease in conjunction with widespread marketing to increase sales of specific drugs and therapies. "The mass marketing of testosterone by direct-to-consumer advertising coupled with lax professional society guidelines have encouraged the disease mongering of testosterone prescribing for contrived indications, that is, common features of aging rather than disorders of the reproductive system that prevent testosterone production and therefore warrant replacement therapy," said Handelsman. "Marketing campaigns such as 'low T' contributed to a more than 10-fold increase in U.S. testosterone prescribing between 2000 and 2011. The epidemic of testosterone prescribing over the last decade has been primarily pushing testosterone as a tonic for sexual dysfunction and/or reduced energy in middle-aged men, neither of which are genuine testosterone deficiency states."
"Clearly, previous attempts to warn doctors and the public of this disease mongering that is potentially medically harmful and costly have not been effective. Now however," said Perls, "with the FDA's recent dual commission findings that testosterone treatment is not indicated for age-associated decline in serum testosterone, alternatively called 'andropause,' 'late-onset hypogonadism' and marketed as 'low T,' we have the opportunity to highlight why hormone replacement (also euphemistically called "bioidentical hormone replacement") for aging with not only testosterone but also growth hormone is disease mongering, that the conjured benefits are unfounded and are far outweighed by the risks, and to provide suggestions about how this deceptive practice can be stopped."

The authors point out that for many men, testosterone does not decline with age among men retaining excellent general health, and if it does, the decline is due to common underlying problems such as obesity and poor fitness. Those who hawk testosterone and growth hormone have developed advertising and in some cases professional-appearing questionnaires that focus on common complaints among older men such as decreased energy, feeling sad, sleep problems, decreased physical performance or increased fat.

Additionally, the authors highlight that many times, a testosterone level won't even be obtained and the patient is told that, simply based on these common symptoms alone or with minor reductions in serum testosterone, they have "late onset hypogonadism," or that their erectile dysfunction may be improved with testosterone treatment.

In the case of growth hormone, the FDA requires that doctors perform a test to demonstrate that the body does not produce enough growth hormone. "Those who market and sell HGH for these common symptoms nearly never perform the test because if they did a properly performed test, it would almost never be positive because the diseases
that cause growth hormone deficiency in adults, such as pituitary gland tumors, are very rare," said Perls.

Health Canada, Canada's FDA, recently echoed the FDA's committee findings that age-related hypogonadism has not been proven to be a disease-justifying treatment with testosterone.

On March 3, the FDA indicated that it is following through with their Committee's recommendations and is now requiring changes to the guidelines that accompany testosterone products. The FDA indicates that testosterone is not to be used for aging and manufacturers must provide the warning that there is a possible increased risk for heart attack, stroke and death with testosterone use. For more information, click here. Both the FDA and Health Canada also warn of an increased risk of blood clots in the legs and lungs.

Growth hormone is well known for its side effects, including joint swelling and pain and diabetes. Ironically, opposite of advertised claims, growth hormone accelerates aging, increases cancer risk and shortens life span in animal studies.

Perls and Handelsman call upon professional medical societies and governmental agencies to take definitive steps to stop disease mongering of growth hormone and testosterone for conjured-up deficiencies.

"These steps include the banning of 'educational' and product advertising of testosterone for these contrived indications," said Perls. "Furthermore, the FDA and Health Canada should require a physician's demonstration of a disease process proven to benefit from testosterone administration in order to fill a lawful prescription for [testosterone]."

Provided by Boston University Medical Center