Q Does testosterone have a role in treating decreased sexual desire in postmenopausal women?

A Yes, provided the diminished desire is causing personal distress and has no other identifiable cause. The North American Menopause Society (NAMS) position statement clarifies the nuances of testosterone therapy in this population.

NAMS position statement on exogenous testosterone

The experts charged with formulating the statement noted that, while endogenous testosterone levels have not been clearly linked to sexual function in postmenopausal women, *exogenous* testosterone—regardless of route of administration—positively affects sexual function after spontaneous or surgically induced menopause, according to randomized controlled trials. The panel agreed on these points:

Existing data do not support using testosterone for any other indication. Nor is it known whether testosterone treatment raises the risk of breast cancer, cardiovascular disease, or thromboembolic events. The optimal duration of therapy beyond 6 months is also unknown.

No level of testosterone has been clearly linked to a clinical syndrome of hypoandrogenism or testosterone insufficiency, nor do available assays accurately detect testosterone concentrations at the values typically found in women.

It is important to rule out other causes of decreased desire not related to testosterone levels, such as physical and psychosocial factors, and medications. Also recommended is ensuring a physiologic cause of reduced testosterone levels, such as bilateral oophorectomy.

Laboratory testing of testosterone levels is warranted only to monitor for supraphysiologic levels during therapy, not to diagnose testosterone insufficiency. The panel recommended non-oral testosterone to avoid first-pass hepatic effects.

Few data support the use of testosterone without concomitant estrogen therapy.

Dosing can be inconsistent in custom-compounded products, which should be used with caution.

Dosage of testosterone should be at the lowest level for the shortest time that meets treatment goals.

EXPERT COMMENTARY

This position statement shows what progress can be made when you put the right people in the right room talking about a topic they know an awful lot about. The clinicians and researchers contributing to the position statement included the best and most practical in the field.

Of critical importance is the section on testosterone testing, in which utilization of testosterone blood levels (or saliva levels, for that matter) to *diagnose* sexual dysfunction is discouraged except to avoid supraphysiologic levels during therapy. The problem here is that a total testosterone level that is supraphysiologic may

North American Menopause Society. The role of testosterone therapy in postmenopausal women: position statement of the North American Menopause Society. Menopause. 2005;12:497–511.

FAST TRACK

Do not use testosterone blood or saliva levels to *diagnose* sexual dysfunction—only to avoid supraphysiologic levels during therapy

be coupled with a free testosterone level within the normal range, usually due to elevated levels of sex hormone binding globulin, as is seen with oral estrogen therapy. Hence, one needs to be careful with the term "supraphysiologic" and not depend on the total testosterone level.

An empiric trial of therapy is implied if other causes are ruled out, and a "normal" blood level should not discourage therapy in affected patients.

Some women experience "double whammy"

The ovaries account, directly or indirectly, for approximately 50% of circulating testosterone even after menopause, leading to significantly decreased testosterone levels after bilateral oophorectomy. Thus, the combination of oral estrogen, with its concomitant increase in sex hormone binding globulin, and bilateral oophorectomy, with its 50% reduction in testosterone levels, becomes a "double whammy" that leads to greatly reduced bioavailable testosterone (and estrogen) and its signs of testosterone insufficiency (as well as relapse of vasomotor symptoms).

FAST TRACK

An empiric trial of testosterone therapy is implied after other causes of decreased desire are ruled out

Post-Oprah counseling

The lack of FDA approval for use of any available testosterone products in women renders their utilization "off-label" in this country, which means we need to add counseling about this issue to any discussion of testosterone therapy for decreased sexual desire.

Another question that has arisen more frequently, especially since Oprah Winfrey advised her TV viewers to ask their doctors for testosterone: Should testosterone be used by a woman who wants to avoid *any* estrogen therapy? Women with this concern should be told that testosterone can also be aromatized to estradiol endogenously. In contrast, oral methyltestosterone is not aromatized to estradiol and, at least in vitro, has been shown to be a potential aromatase inhibitor.

Science lags behind therapy

This is a fascinating time for this area of study and therapy, but the science needs to catch up to the therapy. That will be difficult until the FDA stops its foot-dragging and approves a product for female use.

NAMS advisory is excellent

As for the position statement itself, NAMS has put forth an excellent treatise on the role of testosterone therapy, instead of another medicolegal-inspired statement like the one it issued after the Women's Health Initiative, which led to more confusion and controversy.

This position statement should be read by all clinicians who manage issues of female sexual function and dysfunction. I could not have said it better myself.

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