

GYNAECOLOGY & OBSTETRICS UPDATE

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Is Androgen Therapy indicated for females?

Does an androgen-deficiency state exist in postmenopausal women?

No: The menopausal ovarian stroma continues to produce testosterone in response to increased pituitary gonadotropin stimulation. Furthermore sex hormone binding globulin fell significantly during menopause so that there is a significant increase in free (bioavailable) testosterone. However, with advancing age adrenal androgen production gradually declines.

Does an androgen-deficiency state exist after the removal of both ovaries?

Bilateral oophorectomy in any age leads to approximately 50% reduction of testosterone levels.

Does an androgen-deficiency state exist if the patient on HRT?

Yes in comparison with non-HRT users. HRT leads to a suppression of gonadotropins and a decrease in ovarian androgen production. In addition, oestrogen stimulates the production of sex hormone-binding globulin and thereby leads to decreased free testosterone.

What are the symptoms of loss of androgen?

Sexual dysfunction, loss of libido, depression, decreased energy, and other symptoms have been attributed to the loss of androgen production. **However,** many studies failed to demonstrate a correlation between circulating androgen levels and libido.

Is androgen therapy indicated for the above symptoms?

No:

- * Androgens are not currently approved by the FDA for the treatment of these symptoms
- * The American College of Obstetricians and Gynaecologists announced that there is insufficient data on the safety and efficacy of androgen therapy to recommend this treatment for sexual dysfunction.
- * Clinical studies have not supported the effect of androgen therapy on these symptoms.
- * Some studies have reported better results in restoring sexual function, particularly libido, with oestrogen and androgen than with oestrogen alone. The doses administered (usually by implants or injections), however, produced testosterone levels that were multiples of the physiologic range, and side effects can occur under these circumstances.

What are the side effects of androgen therapy in females?

The side effects are more frequent with injections and implants

- * Virilization, with unwanted acne, seborrhoea, facial and body hair, alopecia (male boldness), clitoral hypertrophy, and even voice change,
- * Somatic effects include fluid retention and bloating.
- * Potentially more serious: hepatocellular, cardiovascular [androgen may alter the HDL/LDL ratio by lowering HDL] and cancer risks.

Is androgen therapy is indicated if the level of bioavailable testosterone is below the normal range and there is sexual dysfunction?

- * The premenopausal sexuality of the couple and current marital issues should be evaluated first. Physical and psychologic disorders should be excluded. In addition, HRT should be optimized because dyspareunia and other climacteric symptoms can adversely influence sexual function.
- * There is no available androgen preparation that can achieve physiologic replacement levels of testosterone in females. A matrix testosterone patch is under development for women that can achieve physiologic testosterone levels.
- * If androgen is given continuing monitoring of side effects (indicating hyperandrogenic levels), and liver function will be indicated.

Reference: Endocrine Practice Vol. 5 No. 6, 2001