



HIRSUTISM

Hirsutism, defined as excessive male-pattern hair growth, affects between 5 and 10 per cent of women of reproductive age. A separate term, virilization, refers to the state in which androgen levels are sufficiently high to cause not only hirsutism, but also additional signs and symptoms such as deepening of the voice, breast atrophy, increased muscle bulk, and clitoromegaly.

Hirsutism is caused by either increased androgen production by the ovaries or adrenal glands, or rarely increased target organ production of androgen. Some hirsute women also have menstrual dysfunction, ranging from anovulatory cycles to amenorrhea, and a few have virilization. Several different androgens may be secreted in excess:

1. Testosterone excess is usually of ovarian origin.
2. Dehydroepiandrosterone sulfate (DHEA-S) excess is of adrenal origin
3. Androstenedione excess can be of either adrenal or ovarian origin

The polycystic ovary syndrome (PCOS) is the most common cause of androgen excess in women. The syndrome is characterized by menstrual irregularity and evidence of hyperandrogenism whether clinical (hirsutism, acne, or male pattern balding) or biochemical (elevated serum androgen concentrations). Other causes include ovarian tumors, adrenal tumors, congenital adrenal hyperplasia, hyperthecosis, hyperprolactinemia, severe insulin resistance syndromes, and drugs (androgens, some progestins). Idiopathic hirsutism describes hirsute women with normal serum

androgen concentrations, no menstrual irregularity, and no identifiable cause of their hirsutism.

All women with hirsutism need a workup to identify the cause of hirsutism. Besides obtaining a good history and physical examination, biochemical evaluation is needed and would include serum total testosterone, DHEA-S, prolactin (if irregular menses), and possibly testing for congenital adrenal hyperplasia. Imaging studies might include an adrenal CT scan or transvaginal ultrasound, if the serum DHEA-S or testosterone is above 700 mcg/dL or 150 ng/dL, respectively.

Treatment of hirsutism should target the underlying etiology. In women with idiopathic hirsutism or PCOS, treatment includes non-pharmacological options - electrolysis or laser hair removal - and pharmacological, i.e.: oral contraceptives, antiandrogens, and insulin-lowering agents, etc.

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