Subject: DHT Hemmer machen dick oder? Wegen Estrogen und so... Posted by tristan on Sun, 06 Aug 2006 02:45:12 GMT

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Dihydrotestosterone treatment results in obesity and altered lipid metabolism in orchidectomized mice.

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OBJECTIVE: To determine the role of androgen receptor (AR) activation for adipose tissue metabolism. Sex steroids are important regulators of adipose tissue metabolism in men. Androgens may regulate the adipose tissue metabolism in men either directly by stimulation of the AR or indirectly by aromatization of androgens into estrogens and, thereafter, by stimulation of the estrogen receptors. Previous studies have shown that estrogen receptor alpha stimulation results in reduced fat mass in men. RESEARCH METHODS AND PROCEDURES: Orchidectomized mice were treated with the non-aromatizable androgen 5alpha-dihydrotestosterone (DHT), 17beta-estradiol, or vehicle. Vo(2), Vco(2), resting metabolic rate, locomotor activity, and food consumption were measured. Furthermore, changes in hepatic gene expression were analyzed. RESULTS: DHT treatment resulted in obesity, associated with reduced energy expenditure and fat oxidation. In contrast, DHT did not affect food consumption or locomotor activity. Furthermore, DHT treatment resulted in increased high-density lipoprotein-cholesterol and triglyceride levels associated with markedly decreased 7alpha-hydroxylase gene expression, indicating decreased bile acid production. DISCUSSION: We showed that AR activation results in obesity and altered lipid metabolism in orchidectomized mice. One may speculate that AR antagonists might be useful in the treatment of obesity in men.