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JOURNAL ARTICLE

FSH is produced by GnRH-deficient men and is suppressed by testosterone

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Because there is an unexpected action of testosterone (T) to increase follicle-stimulating hormone (FSH) production in the absence of gonadotropin-releasing hormone (GnRH) in the rat, the effects of T treatment on circulating FSH were studied in men with GnRH deficiency. FSH immunoreactivity was identified in serum using a sensitive two-site immunoassay in each of five untreated GnRH-deficient men. Analysis by gel filtration chromatography revealed that circulating immunoreactive FSH coeluted with radiolabeled authentic FSH. T enanthate treatment suppressed serum FSH levels in each subject from (mean +/- standard error of the mean [SEM]) 1.02 +/- 0.94 to 0.26 +/- 0.21 mIU/ml (P = 0.061, Wilcoxon rank sum test). Thus, FSH is produced in GnRH-deficient men, but there is no evidence for the stimulatory effect of T on FSH production in the absence of GnRH, as observed in the rat. These preliminary data provide further evidence that male contraceptive strategies using GnRH antagonists to suppress LH and FSH production in normal men will not be counteracted by T replacement therapy, although the issue deserves further attention in that study population.

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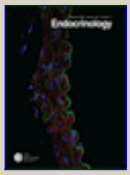

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