

Testosterone therapy in female-to-male transsexuals: effects on gonadotropins, prolactin, gonadal steroids and menstrual cycle.

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Introduction and Objectives:

Testosterone therapy (TT) in female-to-male transsexuals (FMT) usually causes cessation of menses within the first few months. However the changes in the hormonal profile are not well known. We set out to analyze the hormonal changes and menstrual evolution in a cohort of FMT who began TT.

Methodology:

Retrospective observational study with no control group in a cohort of 34 FMT patients who started TT following a standard protocol (target doses were 50 mg transdermal daily or 250 mg parenteral biweekly) comparing routine hormonal laboratory data before and after 6-12 months. A menstrual calendar was requested from the patients.

Results (I):

Age was 27 ± 6 years and BMI 26.7 ± 3.1 kg/m² (mean \pm s.d.). As expected, treatment increased free testosterone (0.51 ± 0.18 to 15.5 ± 5.2 ng/dL, $p < 0.001$, paired t-test) and reduced 17- β -estradiol (118.3 ± 39.4 to 37.9 ± 14.1 pg/mL, $p < 0.001$). LH and FSH were also reduced (33.7 ± 13.4 to 1.7 ± 0.7 mIU/mL, and 9.9 ± 4.5 to 1.7 ± 0.7 mIU/mL, both $p < 0.001$), while PRL was unchanged (16.6 ± 6.8 to 17.5 ± 7.6 ng/mL, $p = 0.155$).

Results (II):

After the first, second, third, fourth, fifth and sixth month, 82%, 38%, 15%, 6%, 3% and 0% of the patients maintained menses, although 9% of the patients reported minor spotting and/or abdominal pain after the sixth month.

Conclusions (I):

Routine TT in our FMT cohort markedly reduced the circulating gonadotropins but did not totally suppress ovarian function along the first year (17- β -estradiol was in normal range for cisgender males but not suppressed) and did not raise prolactin.

Conclusions (II):

Almost 90% of the patients had ceased menses after 3 months and all of them after 6 months, except for minor disturbances. Supplementary treatments, such as medroxyprogesterone acetate injections, were not needed.

