

Prenatal testosterone excess alters Sertoli and germ cell number and testicular FSH receptor expression in rams

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Exposure to excess testosterone (T) during fetal life has a profound impact on the metabolic and reproductive functions in the female's postnatal life. However, less is known about the effects of excess testosterone in males. The aim of the present study was to evaluate the impact (consequences) of an excess of T during fetal development on mature male testis. The testicular evaluation was by histological analysis and by determination of mRNA expression of the FSH receptor (FSH-R), transforming growth factor- β type I receptor (T β R-I), and two members of the TGF- β superfamily, transforming growth factor- β 3 (TGF β 3) and anti-Müllerian hormone (AMH) in males born to mothers receiving an excess of T during pregnancy. At 42 wk of age, postpubertal males born to mothers treated with 30 mg of T propionate twice weekly from day 30 to 90, followed by 40 mg of T propionate from day 90 to 120 of pregnancy (T males), showed higher concentrations of FSH in response to a GnRH analog, a higher number