Experimental study of effect on tonifying kidney herbs in pituitary ovary adrenal gland of androgen sterilized rats

Gui SQ; Yu J; Wei MJ Obstetrics and Gynecology Hospital, Shanghai Medical University *- Chung Kuo Chung Hsi I Chieh Ho Tsa Chih, 17(12):735-8 1997 Dec (ISSN: 1003-5370)*

OBJECTIVE: To observe the effect of tonifying Kidney herbs (TKH) in pituitary, ovary, adrenal gland of androgen sterilized rats (ASR). METHODS: ASR model was established by injecting testosterone propionate subcutaneously to SD female rats of 9 days age. Morphological and hormonal change of pituitary, ovary and adrenal gland in rats of 100-107 days old before and after feeding TKH extract were observed by light and electron microscope, cell culture immunohistochemical studies and radioimmuno-assay. RESULTS: In the ASR groups, there were intracytopiasmic lipid drops, autophagy, vacuole, granulolysis of pituitary gland. There were anovulation apparently and increased the amount of lipid drops in cytoplasm of interstitial glandular cell of ovary. The fatty drops of the reticular zone of adrenal gland decreased, the number of AGNOR ($P < 0.01$) and PCNA ($P < 0.01$) increased significantly. The levels of FSH, LH ($P < 0.05$-0.005) lowered, but the levels of DHA, T ($P < 0.01, 0.05, 0.001$) were raised significantly. Morphological and hormonal change of all RSA returned to normal range after the treatment. CONCLUSIONS: The hyperandrogenemia were disturbed by the function of sex gland axis and adrenal in female rats of 9 days old and played an important role in pathogenesis of ASR, the TKH reduced the levels of androgen and induced ovulation through sex gland axis and adrenal level and multi-organ regulation.