

# Androgen and estrogen receptors and co-regulators levels in endometria from patients with polycystic ovarian syndrome with and without endometrial hyperplasia

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**Objective.:** To study if the endocrinological status of PCOS women affects the endometrial sensitivity to steroids by evaluating the expression of androgen receptor (AR), estrogen receptor ? (ER?), estrogen receptor ? (ER?), co-activators AIB1 and ARA70, and co-repressor NCoR.

**Methods.:** Gene and/or protein expression of steroid receptors and co-regulators was measured in 17 samples of normal endometrium (NE), 23 PCOS endometrium without treatment (PCOSE), 11 endometria from PCOS women and with endometrial hyperplasia (HPCOSE), and 10 endometria from patients with endometrial hyperplasia (HE), using RT-PCR and/or immunohistochemistry and Western blot. **Results.:** Gene and protein expression of AR was relatively elevated in PCOSE and HPCOSE compared with NE. A significant increase in ER? protein expression was observed in PCOSE, preferentially in the nucleus of endometrial cells, whereas ER? gene and protein expression increased gradually from PCOSE to HPCOSE and HE, mainly in the epithelia