

Sex hormone-binding globulin expression in the endometria of women with polycystic ovary syndrome

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Objective: To evaluate the protein and messenger RNA expression of sex hormone-binding globulin (SHBG) in endometria from women with polycystic ovary syndrome (PCOS). **Design:** Case-control study. **Setting:** Hospital research unit. **Patient(s):** Thirty-three women with PCOS, and 17 fertile, healthy women of similar age to those with PCOS. **Intervention(s):** Endometrial and blood samples were obtained from women with PCOS (PCOSEs) and from control women (CEs) during the proliferative phase of the menstrual cycle. **Main Outcome Measure(s):** Expression studies for SHBG (immunohistochemistry and reverse transcription-polymerase chain reaction). Hormonal studies for determining sex steroids (T, P, and E2) and SHBG concentration. Insulin sensitivity was assessed by composite insulin sensitivity index (ISI_{composite}). **Result(s):** In stroma, the protein expression of SHBG was lower in PCOSEs than in CEs. Epithelial cells had a similar expression of SHBG protein in both groups. Messenger RNA of variant 548