The role of androst-5-ene-3?,17?-diol (androstenediol) in cell proliferation in endometrium of women with polycystic ovary syndrome

Plaza-Parrochia, Francisca

Bacallao, Ketty

Poblete, Cristian

Gabler, Fernando

Carvajal, Rodrigo

Romero, Carmen

Valladares, Luis

Vega, Margarita

Women with polycystic ovary syndrome (PCOS) show high prevalence of endometrial hyperplasia and adenocarcinoma. Endometrial proliferation is increased, evaluated by high levels of Ki67 (cell cycle marker) and low levels of p27 (negative regulator of cell cycle). Nevertheless, endometrial changes in cyclin D1 (positive regulator of cell cycle) in PCOS-women are not described. Androst-5-ene-3?,17?-diol (androstenediol), steroid with estrogenic activity present in endometria, could be related to increased endometrial cell proliferation. The objective of this study was to determine protein content of cyclin D1 and androstenediol levels in endometria from PCOS and control-women and to evaluate the possible mechanism favoring cell proliferation associated with hormonal characteristics of patients. Therefore, cyclin D1 protein content in PCOS-women and control-endometrial tissue were assessed by western blot and immunohistochemistry. The androstenediol levels were evaluated by ELISA. To furth