Evaluation of endometrial and subendometrial vascularity in obese women with polycystic ovarian disease

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Abstract:

Introduction The study aims to evaluate the effect of obesity on the endometrium in women with polycystic ovarian disease (PCOD) through evaluation of endometrial and subendometrial vascularity by two-dimensional (2D) ultrasound, Doppler and three dimensional power Doppler (3DPD). Methods A prospective case-control study, conducted in a tertiary University hospital between February 2016 and December 2016. The study included 50 women with PCOD and 50 fertile regular menstruating women divided according to their body mass index (BMI) into normal weight and overweight/obese groups. Endometrial thickness and pattern combined with Doppler examination of the uterine vessels for measurement of Resistance index (RI) and pulsatility index (PI) were assessed. Evaluation of endometrial and subendometrial blood flow was performed by 3DPD using Virtual organ computer-aided analysis program. Results No significant difference in the endometrial pattern or thickness between all study groups. Endometrial volume was significantly lower in the overweight/obese PCOD women and overall in the PCOD women compared to the control group (p

Keywords:

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