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## The effect of clomiphene citrate versus tamoxifen versus letrozole on endometrial thickness and blood flow in ovulation induction in women with polycystic ovaries

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**Aim:** To compare between the effects of clomiphene citrate, tamoxifen and letrozole as ovulation induction agents on endometrial thickness and blood flow in women with polycystic ovaries.

**Patients & Methods:** One hundred and fifty cases meeting the selection criteria were prospectively randomized into 3 groups group 1 received 100 mg clomiphene citrate, group 2 received 5 mg letrozole and group 3 received 40 mg tamoxifen. Transvaginal ultrasound and Doppler were done to measure endometrial thickness and endometrial blood flow both pulsatility index (PI) and resistance index (RI) at the day of the maximum follicular growth or at day 20 in the absence of the dominant follicle in the 3 groups.

**Results:** Significantly thinner endometrium in the clomiphene citrate group as compared to the other two groups and lower impedance in the spiral arteries in both letrozole and tamoxifen groups were found (P value less than 0.001).

**Conclusion:** Endometrium was thicker with lower impedance in the spiral arteries in both letrozole and tamoxifen groups as compared to clomiphene citrate group. Ovulation and pregnancy rates were not significantly different. Further studies are needed to measure the cumulative results of 6 cycles, increasing the dose in non-responders and the incidence of miscarriage.

### Biography

Asem Anwar has completed his combined supervised MD thesis from both Alazhar School of Medicine and Glasgow Universities. He is working as a Professor of Obstetrics and Gynecology at Alazhar School of Medicine since 2002 and Ex-Director of the Maternity University Hospital [Syed Galal] Cairo-Egypt. He is the Secretary General of the Egyptian Society for Population Reproductive Health studies, Secretary General of the Healthy Child Healthy Mother Association and Consultant of ob/gyn at Air Force Specialized Hospital.

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