

Abstract (600 word limits)

Effect of oral Tadalafil on endometrial thickness in patients receiving Clomiphene citrate for ovulation induction

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Adequate and optimum endometrial development is required for a successful pregnancy to occur. Clomiphene citrate is well known for its negative impact on endometrial thickness. The long-acting phosphodiesterase 5 inhibitor, Tadalafil, was shown to improve endometrial growth in patients under Clomiphene citrate stimulation.

Objective: To study the effect of Tadalafil on the endometrial thickness in Clomiphene citrate stimulated cycles as compared to clomiphene citrate alone and human menopausal gonadotropins.

Study design: A randomized controlled study. Setting was at the infertility clinic of Cytogenetic and Endoscopy Unit, Zagazig University Hospital.

Material and methods: The study included 236 patients who underwent a single cycle of ovulation induction and timed intercourse. Patients were divided into 3 groups: Controlled ovarian stimulation was done in group A by Clomiphene Citrate alone, in group B by Clomiphene Citrate with addition of Tadalafil and in group C by Human Menopausal Gonadotropins.

Results: As regard the number of cases who got pregnant, we found that there was a statistically significant difference ($P < 0.05$) for patients in group B and C when compared with group A.

Conclusion: This study showed that the pregnancy rate achieved with Clomiphene citrate / Tadalafil combination was comparable to that achieved by Human Menopausal Gonadotropins and significantly higher than with Clomiphene citrate alone. This was attributed to the improvement of endometrial thickness by Tadalafil in Clomiphene citrate stimulated patients. COS by Clomiphene citrate / Tadalafil protocol can be used as a safer and cheaper alternative to the conventional hMG stimulation protocol in cases of primary infertility including unexplained infertility and PCOS with nearly the same pregnancy rate achieved with hMG stimulated cycles.

Keywords: endometrial thickness, Tadalafil, Clomiphene citrate, ovulation induction

Biography (200 word limit)

Dr. Islam Mohamed Magdi Ammar is an assistant professor and Consultant of Obstetrics and Gynecology, Faculty of Medicine, Zagazig University, Egypt. He had Bachelor degree (MB Bch) in Medicine and Surgery, Master (M.Sc.) and Doctorate (M.D.) degrees in Obstetrics and Gynecology from the previously mentioned institute. He had a fellowship in assisted reproductive technology from the World Laparoscopy Hospital-Delhi. His field of interest is reproductive endocrinology and gynecological endoscopy. He is currently working as a consultant of Obstetrics and Gynecology at the Saudi German Hospital, Medina, Saudi Arabia.

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