

**Increased pregnancy rates (PR) following ovulation induction (OI) and intrauterine insemination (IUI) in patients with minimal or mild endometriosis treated with depot GnRHa**

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**INTRODUCTION:** To evaluate the pregnancy rate of depot GnRHa treatment in patients with minimal or mild endometriosis following ovulation induction (OI) and intrauterine insemination (IUI).

**METHOD(S):**

**DESIGN:** Retrospective, observational study

**SETTING:** A university hospital.

**MATERIAL(S):** We reviewed the all medical charts of patients being treated in our center between January 1995 and January 2002. We included 479 women with a laparoscopic diagnosis of endometriosis stage I or II according to the revised American Fertility Society classification. Totally, 669 cycles of IUI with different superovulation protocols were included in this study, which were consisted four groups (group 1, C.C. + FSH, n=172; group 2, hMG+FSH, n= 64; group 3, hMG+FSH, n= 338; and group 4, C.C. + FSH, n=95). The group 3 and group 4 were treated with GnRHa (Leuplin depot 1.88 mg) for 2 months before ovulation induction. The main outcome measure was the pregnancy rate (cycle fecundability rate).

**RESULT(S):** The cycle fecundability rate and ongoing pregnancy rate were significant higher in superovulation protocols after GnRHa treatment (C.C. + FSH after GnRHa, 30.5% and 23.2%; hMG + FSH after GnRHa, 22.2% and 18.9%) compared with protocol 1 (C.C. + FSH, 14.0% and 11.0%,  $p<0.05$ ). The abortion rate was no significant difference between four different superovulation protocols.

**CONCLUSION:** The superovulation protocols after GnRHa (Leuplin depot) treatment showed significant higher cycle fecundability rate than the protocols of without GnRHa treatment in women with minimal or mild endometriosis. Moreover, the protocol of C.C. and FSH after GnRHa (Leuplin depot) treatment revealed as the most effective superovulation protocol for IUI in women with infertility associated with minimal or mild endometriosis. Based on our finding, we suggest that aggressive treatment with GnRHa (Leuplin depot) plus superovulation and IUI is essential for women with infertility associated with minimal or mild endometriosis.