

a longer duration of ovarian stimulation was needed for HA patients, yet the mean number of retrieved oocytes and fertilization rates did not differ. The implantation, pregnancy, multiple pregnancy and spontaneous loss rate were similar in both groups. None of the patients developed moderate or severe ovarian hyperstimulation syndrome.

CONCLUSIONS: Women with hypothalamic amenorrhea undergoing IVF have as favorable a prognosis at pregnancy as do women with tubal factor, despite a significantly higher requirement of total gonadotropin dose. The spontaneous loss (43.5%) and multiple pregnancy (40.1%) rates in the HA group were unexpectedly high, but not significantly higher than in the TF group. A larger sample size will be needed to investigate this trend further.

TABLE 1. Hypothalamic amenorrhea vs. tubal factor

	Hypothalamic Amenorrhea	Tubal Factor	P value
Days of stimulation	10.1±1.4	8.4±1.3	<0.0001
Total gonadotropin use (IU)	3996±1001	2737±820	<0.0001
Peak E2 day of hCG (pg/mL)	2536±1355	2528±1696	0.98
Oocytes retrieved	15±7.9	14.6±5.6	0.79
Fertilization rate/oocyte(%)	57.6	58	0.96
Implantation rate (%)	35.9	36.8	0.99
PR/ET (%)	63.9	56.4	0.67
Multiple PR (%)	40.1	34.8	0.69
SAB rate (%)	43.5	22.7	0.25

Values are means ± standard deviation or percentages. E2, estradiol; hCG, human chorionic gonadotropin; PR, pregnancy rate; ET, embryo transfer; SAB, spontaneous abortion.

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CABERGOLINE DECREASES THE RISK OF OVARIAN HYPERSTIMULATION SYNDROME AND HAS NO EFFECT ON PREGNANCY RATE DURING IN VITRO FERTILIZATION. R. Bhargoo, M. Karunis, J. Ballas, G. A. San Roman, J. R. Stelling. Department of Obstetrics and Gynecology, SUNY Stony Brook School of Medicine, Stony Brook, NY; New York College of Osteopathic Medicine, Stony Brook; Reproductive Specialists of New York, Winthrop University Hospital, Mineola, NY; Reproductive Specialists of New York, SUNY Stony Brook School of Medicine, Stony Brook, NY.

OBJECTIVE: To determine if cabergoline decreases the risk of ovarian hyperstimulation syndrome(OHSS) in patients undergoing in vitro fertilization(IVF), without affecting the pregnancy outcome.

DESIGN: A retrospective case control of high risk patients given cabergoline for prevention of OHSS compared to young controls undergoing IVF.

MATERIALS AND METHODS: Patients undergoing IVF at a large university affiliated practice from January 2004 to April 2007 were evaluated. Starting in 2006, patients at high risk for OHSS were treated with cabergoline 0.5mg on Day 0, Day 3 and Day 6. Prophylactic treatment was at the discretion of the attending physician at time of oocyte retrieval. IVF patients age 30-35 were chosen as pregnancy rate controls, because of their expected good ovarian response. Statistical analysis was performed using Chi-Square analysis.

RESULTS: The study group consisted 74 cycles of hi-risk patients who were treated with cabergoline. 302 controls were chosen between the ages of 30-35. The study group had a mean age of 33, peak estradiol of 3472 pg/ml, 25% with a history of polycystic ovary syndrome, 10% with a history of previous OHSS. Clinical outcomes are shown in Table, demonstrating no change in pregnancy rates.

TABLE 1. Clinical Outcomes in the Cabergoline Group Compared to Controls

Outcome Measure	Cabergoline	Controls	p Value
Average # Oocytes	24	15	0.0001*
# Transfers	64	284	
Average # Transferred	2.0	2.2	0.660
Implantation Rate	33%	34%	0.7464
Biochemical Pregnancy Rate	59%	57%	0.763
Clinical Pregnancy Rate	50%	55%	0.5276

* P< 0.05 as significant.

Table 2 shows a 42% decrease in the number of office visits for OHSS evaluation during years that cabergoline was used. The number of IVF cycles during those years was used to correct for variation in clinical volume.

TABLE 2. Number of Office Visits and Admissions for OHSS in the Years Preceding and After Cabergoline Use

	2004	2005	2006- + Cabergoline	1-4/2007 + Cabergoline
OHSS Visits	126	120	60	16
IVF Cycles	905	934	783	200
# Admissions	1	7	3 (Not on cabergoline)	1 (On cabergoline)

*P<0.0001 comparing # OHSS visits/# IVF cycles in years before and after cabergoline use.

CONCLUSIONS: Cabergoline is a safe and well tolerated medication that decreased the frequency and severity of OHSS after IVF in Hi-Risk patients. The high pregnancy rate observed was similar to other young women, suggesting no significant detriment to pregnancy rates or outcomes.

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GnRH ANTAGONIST VS. MICRODOSE FLARE AGONISTS TREATMENT IN OLDER PATIENTS UNDERGOING ART. A. Beltsos, M. L. Uhler, D. Ezcurra. Fertility Center of Illinois-River North IVF Ctr., Chicago, IL; Medical Affairs - Fertility, EMD Serono, Rockland, MA.

OBJECTIVE: The objective of this study was to compare cycle outcomes in older patients under COH for IVF, utilizing GnRH Antagonists versus Microdose Flare Agonist in combination with rFSH/rhLH.

DESIGN: Retrospective observational study.

MATERIALS AND METHODS: 522 patients between 37 and 42 years old undergoing COS were evaluated in this study. GnRH antagonist started at a dose of 0.25 mg daily when the lead follicle was 14 mm; Microdose Flare (MDF) protocol utilizing GnRH agonists started on day one of the cycle at a dose of 0.04 mg bid starting; both protocols continued with the same regimen until the day of hCG. Ovarian stimulation started on day 3 with 300-450 IU of rh-FSH and 150 IU of rh-LH. Adjustments were individualized based on patient responses. When two or more follicles reached ≥ 20 mm, 250 mcg of rhCG 250 SC or 10,000 IU of uHCG were administered and oocyte retrieval performed 35 hs after. Embryos were ultrasound-guided transferred on day 3 or 5. All patients received 50 mg/day of progesterone in oil IM. Statistical analysis was done using ANOVA for continuous data and Chi Square for categorical data; statistical significance was set at p<0.05. The results were expressed as mean ± SD or percentages, as appropriate.

RESULTS: The characteristics and outcomes of ART cycles utilizing GnRH Agonists or Microdose Flare Agonists in patient's between 37 - 42 years old, were presented in table 1. The results expressed as mean ± SD or percentages, as appropriate, are summarized below.

TABLE 1. IVF cycles: utilizing single combined injection of drugs

	GnRh Antagonists	MDF Agonists	P-value
N	389	133	
Age (years)	38.0 ± 3.8	37.9 ± 3.5	0.7
BMI (kg/m2)	24.2 ± 5.5	23.9 ± 5.1	0.5
Days on Gonadotropins	13.2 ± 3.9	14.5 ± 3.3	0.001
Total gonadotropins (IU)	5816± 2200	6224 ± 2389	0.01
# oocytes retrieved	10.2 ± 6.6	9.0 ± 6.5	0.1
# oocytes inseminated	5.0 ± 5.4	3.6± 4.2	0.007
# fertilized oocytes	3.9 ± 4.6	6.4 ± 6.6	0.008
# embryos transferred	2.72 ± 1.91	2.75 ± 1.96	0.8
Clinical pregnancy	19.5% (76)	21.8% (29)	0.7

CONCLUSIONS: COH protocols for IVF in older patients utilizing GnRH Antagonists in combination with r-hFSH/r-hLH utilize significantly less total gonadotropins over less days of treatment and produce less fertilized oocytes than MDF Agonists. When transferring similar number of embryos, pregnancy rates do not differ between both protocols of stimulation.

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