

of blastocysts and good quality blastocysts was 4 and 2, respectively. Clinical factors positively influencing the rate of good quality blastocyst formation were younger female age, shorter duration of infertility, tubal factor infertility, and smoking. Negative factors included nulliparity, use of ICSI, and use of higher doses of gonadotropins to achieve ovarian stimulation. Factors having no effect were BMI, total motile sperm count, antral follicle count, and stimulation protocol.

TABLE. Factors predicting good quality blastocyst formation

Clinical variable	Odds ratio	95% C.I.	P-value
Female age <30 (vs. >35)	1.90	1.17, 3.08	0.01
Female age 30–35 (vs. >35)	1.36	0.88, 2.10	0.16
Ampules of hMG used ( $\leq 23$ vs. $>23$ )	1.55	1.05, 2.26	0.02
Standard insemination (vs. ICSI)	1.51	1.08, 2.11	0.02
Tubal factor infertility	1.50	1.02, 2.21	0.04
Current smoker	3.09	1.40, 6.81	0.01
Previous smoker	1.43	0.89, 2.28	0.14
Duration of infertility $\leq 36$ months	1.52	1.06, 2.16	0.02

1 ampule hMG = 75 IU.

**CONCLUSIONS:** Good quality blastocyst formation is predicted by younger female age, better ovarian responsiveness to gonadotropins, and shorter duration of infertility; factors important for counseling and cycle planning. Surprisingly, use of ICSI had a negative effect while smoking seemed to have a positive effect. This suggests that limiting ICSI use may benefit blastocyst transfers. The effect of smoking is based on small numbers but implies the mechanism of reduced pregnancy rates associated with smoking is not due to impaired embryo development in vitro.

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## P-91

**MICROBIAL GROWTH FROM THE TIP OF THE EMBRYO TRANSFER CATHETER DO NOT INFLUENCE PREGNANCY AND IMPLANTATION RATES AFTER ICSI.** L. G. L. Maldonado, E. F. Trombela, F. F. Pasqualotto, W. Busato, A. Iaconelli Jr, E. Borges Jr. Clinical, Fertility-Assisted Fertilization Center, Sao Paulo, Brazil; Clinical Analysis, Fertility-Assisted Fertilization Center, Sao Paulo, Brazil; Biological Sciences, University of Caxias do Sul, Caxias do Sul, Rio Grande do Sul, Brazil; Clinical, Conception-Human Reproduction Center, Caxias do Sul, Rio Grande do Sul, Brazil; Scientific, Sapientiae Institute-Research Center, Sao Paulo, Brazil.

**OBJECTIVE:** The decreased embryo implantation rates after ICSI may be attributed to variables as endometrial receptivity and embryo's implantation potential. While embryo implantation competence has been extensively studied, factor implicated to endometrial receptivity as female reproductive tract (FRT) contamination has been poorly investigated. *Lactobacillus* species appears to reduce potentially pathogenic colonization (PPC) in FRT. This study was conducted to examine the impact of the presence of *Lactobacillus sp* or cervical PPC on the ICSI outcomes.

**DESIGN:** A prospective study.

**MATERIALS AND METHODS:** This study included 44 ICSI cycles in which women were  $32.4 \pm 4.0$  years old, and submitted to a controlled ovarian hyperstimulation long protocol with GnRH agonist and r-FSH. Embryo transfer was performed on day three and after transfer the tip of the catheter was placed in culture medium as well as the endocervical swabs. Catheter tips and endocervical swabs were each inoculated on primary culture media for 48 h, when growth from different medium were examined. It was investigated the association between the presence *Lactobacillus sp* and PPC in cervical fluid or catheter tip and the impact of PPC on pregnancy and implantation rates after ICSI. The data was analyzed by chi square, fisher's exact and correlation tests.

**RESULTS:** A negative correlation was observed between the presence *Lactobacillus sp* and PPC in the cervical fluid ( $P < 0.001$ ). The same was observed between the presence *Lactobacillus sp* in the cervical fluid and catheter tip contamination ( $P < 0.001$ ). The rate of PPC in women who underwent embryo transfer was 51.1%. The overall pregnancy rate was 46.5% and of the 21 patients with either sterile or *lactobacilli*-positive cultures, 10 (47.6%) conceived, whereas among the 22 in whom any other micro-organism was recovered 10 (45.4%) conceived ( $P = 0.621$ ).

**CONCLUSIONS:** In the present study, patients presenting *Lactobacillus sp* on the cervical fluid were the most likely to show a reduced PPC in the cervix and catheter tip contamination. Previous studies have identified a link of abnormal cervical microbiology and lower in vitro fertilization success. Conversely we didn't find any correlation between the level of *Lactobacillus sp* and pregnancy or implantation rates. Furthermore pregnancy and implantation rates were not correlated with cervical PPC. Therefore we suggest that treatment to prevent cervical microorganism proliferation to improve the success of ICSI may not be justified.

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## P-92

**A RETROSPECTIVE COMPARISON OF MICRODOSE FOLLICULAR PHASE AND LUTEAL PHASE GONADOTROPIN RELEASING HORMONE AGONIST (GnRH-a) SUPPRESSION FOR IN VITRO FERTILIZATION IN PATIENTS 30 YEARS OLD AND YOUNGER.**

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**OBJECTIVE:** Historically, microdose follicular phase agonist (MDF) use in IVF has been restricted to poor responders. In our program, we have used MDF more liberally because of its lower cost in a cost-contained military setting. Few studies have examined MDF in good prognosis patients. The objective of this study was to assess cycle outcome among ART patients  $\leq 30$  years receiving MDF or LL (luteal phase agonist) for LH surge suppression.

**DESIGN:** Retrospective cohort study.

**MATERIALS AND METHODS:** After IRB approval, women  $\leq 30$  years undergoing their first, autologous ART cycle from 01/99–12/05 were evaluated. MDF or LL was determined based on pre-cycle screening. Both groups were pre-treated with oral contraceptive pills; LL and MDF groups underwent suppression as previously described (Leondires *et al.*, 1999). Cycle characteristics and outcomes were evaluated using t-test and chi-square as appropriate; generalized estimating equations were used for multivariable models.

**RESULTS:** 499 patients met inclusion criteria (LL = 287, MDF = 212). Pre-cycle/In-cycle characteristics and cycle outcomes are reported below (Table 1). Primary diagnosis differed between groups: LL had more ovulatory dysfunction while MDF had more unexplained infertility ( $P < 0.001$ ). No differences were seen in day 3 FSH, oocytes retrieved, oocyte maturity, fertilization rate or embryos transferred. In multivariable models, no significant differences were observed between the groups regarding implantation and live birth rates.

TABLE 1. Cycle characteristics and outcomes of MDF and LL among patients  $\leq 30$  years

	LL (n = 287)	MDF (n = 212)	P-value
	Mean (SD)		
<b>Characteristics:</b>			
Age (yrs)	27.3 (2.0)	28.6 (1.6)	<0.001
Antral follicle count (n)	17.7 (10.5)	15.7 (9.3)	0.04
Day 6 estradiol (pg/mL)	623 (556)	604 (647)	NS
Stimulation days (d)	9.3 (0.1)	9.8 (0.1)	0.003
Peak estradiol (pg/mL)	3797 (1934)	3891 (1963)	NS
Total gonadotropins (amps)	33.9 (11.8)	39.9 (16.3)	<0.001
Cycles cancelled (n)	27 (9.4)	23 (10.8)	NS
Assisted hatching (n)	85	42	0.007
<b>Outcome:</b>			
Implantation rate (%)	39.2	34.5	NS
Biochemical pregnancy (%)	4.6	7.2	NS
Spontaneous abortion (%)	4.3	4.3	NS
Clinical pregnancy (%)	51.2	48.6	NS
Live birth (%)	50.0	48.6	NS