

respectively). The respective implantation rates were 17.8% and 24.9% ( $p < .02$ ).

**CONCLUSION:** Fertilization of eggs by ICSI for unexplained infertility may result in more embryos for transfer as determined by a significantly higher fertilization rate. Nevertheless, the percentage of couples failing to fertilize any embryos was similar and uncommon (2.8% with ICSI vs. 3.2% without ICSI). However this may be at the expense of a decreased implantation potential of these embryos. These data suggest that the process of ICSI may result in a less hearty embryo than when fertilized with conventional insemination. Though one should be cautious about the conclusions from a retrospective study involving only 198 cases, this information can be provided to a patient and allow them to participate in the decision to perform ICSI or not. At least the fear that conventional insemination could lead to a greater risk of failed fertilization can be allayed by this study. The process of ICSI increases the expense for the patient and intensifies the work load for the embryologist.

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#### P-586

**Impact of Previous Hysterosonometry on Embryo Transfer.** L. G. Maldonado, S. A. Ajzen, W. C. Busato, A. Iaconelli Jr., M. Bibancos, E. Borges Jr., Fertility - Assisted Fertilization Center, Sao Paulo, Brazil; Federal University of Sao Paulo, Sao Paulo, Brazil.

**OBJECTIVE:** The occurrence of clinical pregnancy is influenced by many factors, including the embryo transfer (ET) procedure. At present, ET is the focus of particular attention as an essential factor associated with IVF failure or success. Most programs have relied on feel by the clinician placing the transfer catheter and embryos within the uterine cavity at a point near the fundus. Moreover, there is no general agreement on the usefulness of performing ET with direct ultrasound guidance. The aim of this study is show our preliminaries results related to the impact of previous cavity depth measurement by transvaginal ultrasound (hysterosonometry) followed by blind ET compared with abdominal ultrasound guidance during ET.

**DESIGN:** Prospective and randomized study

**MATERIALS AND METHODS:** This study was conducted according to the rules of Institutional Review Board. A total, 26 patients in treatment for infertility were included in this work and randomized based on the ET technique in 1: 1 scheme. In 13 patients, hysterosonometry was performed before ET without ultrasound guidance (Group A). On the other hand, in Group B, ET was guided by abdominal ultrasound and without previous hysterosonometry. All procedures of hysterosonometry aimed the measurement between the distances from external cervical to fundus endometrial surface intending to find the optimum point to embryo replacement. For all transfers, the catheter tip was placed above the half point of endometrial cavity. Embryos were transferred on day +3 and selected based on our cumulative embryo score. Through a numerical scale that varies from zero to 48, respectively, best and worst embryo, 18 morphological parameters from the day of fertilization diagnosis to the day +3 were analyzed. Statistical analyses were performed using Mann-Whitney and qui-square tests.  $P < 0.05$  was considered statistically significant.

**RESULTS:** The groups were comparable in terms of mean maternal age (A: 29.4 years; B: 28.3 years;  $P = 0.538$ ), maternal BMI (A: 24.1; B: 24.5;  $P = 0.935$ ), recombinant-FSH doses administered (A: 1650; B: 1679;  $P = 0.343$ ), mean number of retrieved oocytes per patient (A: 19.9; B: 18.0;  $P = 0.918$ ), percentage of matured oocytes (MII) per retrieved oocytes (A: 80.5%; B: 83.3%;  $P = 0.419$ ), normal fertilization rate (A: 64.8%; B: 67.7%;  $P = 0.629$ ), final score of embryos transferred (A: 8.8; B: 9.1;  $P = 0.573$ ), mean number of embryos transferred per cycle (A: 4; B: 4;  $P = 1.00$ ) and endometrial thickness (A: 14.0; B: 13.0;  $P = 0.442$ ). No differences were noted in implantation (26.9% versus 17.3%; A and B, respectively;  $P = 0.237$ ) and pregnancy rates (76.9% versus 38.5%; A and B, respectively;  $P = 0.047$ ).

**CONCLUSION:** These preliminary results suggest that previous hysterosonometry seems to promote satisfactory outcomes although the absence of statistical differences. A numerical tendency to better pregnancy and implantation rates was exhibited when previous uterine cavity depth measurement was done. However, further studies should be done to confirm our findings.

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#### P-587

**The Effect of Acupuncture on Outcome of in Vitro Fertilization.** N. M. Khorram, S. Horton, V. Sahakian. Pacific Fertility Center, Los Angeles, CA.

**OBJECTIVE:** To determine the effects of acupuncture treatment as an adjunctive therapy on the outcome of *in vitro* fertilization (IVF) and resultant pregnancies.

**DESIGN:** A retrospective analysis of 238 patients who underwent conventional IVF over a course of 2 years. Of these, 127 patients received acupuncture treatment during IVF, and 111 patients had IVF alone. Frozen cycles and donor egg cycles were excluded.

**MATERIALS AND METHODS:** Patients in the two treatment groups were matched in terms of age and diagnosis. The stimulation protocol consisted of oral contraceptive suppression for a month followed by Leuprolide acetate for down regulation. For controlled ovarian stimulation a combination of recombinant FSH and HMG preparation was used. A single acupuncturist administered the treatment. A minimum of two sessions were given 5 to 7 days prior to and on the day of embryo transfer. The results were then analyzed by Student's t-test, Chi-square and McNemar's test.

**RESULTS:** The two treatment arms were similar in terms of age and diagnosis. There were no differences between the two groups in terms of fertilization rate, pregnancy or implantation rates, and endometrial thickness on the day of HCG administration. The number of oocytes retrieved and the number of first trimester miscarriages were however significantly lower in the group receiving acupuncture ( $P < .001$ ).

**CONCLUSION:** There were fewer first trimester miscarriages in the acupuncture group. This could be secondary to stress relief caused by the treatment as most patients expressed a sense of well-being and relaxation. It could also be related to improved uterine blood flow as previously reported.

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#### P-588

**Hysteroscopic Findings in Women With a History of Very Thin Endometrium During Assisted Conception Treatments.** K. Marikinti, Bourn Hall Clinic, Cambridge, United Kingdom.

**OBJECTIVE:** A thin endometrium (Em) on Trans Vaginal Sonography (TVS) is the most widely used screening test for endometrial inadequacy. We aimed to study the value of Hysteroscopy (Hy) in these cases.

**DESIGN:** Prospective observational study in a tertiary fertility centre.

**MATERIALS AND METHODS:** Thirty-four women who were found to have a thin Em of  $\leq 6$  mm prior to embryo transfer, underwent both a repeat TVS and Hy, either during an abandoned treatment cycle, or in a natural cycle after the failed attempt. The follow-up data of 21 women who subsequently underwent further treatment is presented.

**RESULTS:** The incidence of very thin endometrium in all the infertile women who underwent Hy for various indications was 12.5%. All 34 cases gave a history of uterine interventions: 18 uterine evacuations, 8 assisted conception related procedures, 3 caesarean sections and there was a history of endometritis (2), peritonitis (2) and myomectomy (2). The hysteroscopic findings were divided into: Group A ( $n=14$ ), narrow glandular openings, thin blood vessels mal-distributed in a fragile Em; out of phase Em was present in 8 of 13 samples (Figure 1). Group B ( $n=12$ ), moderately developed glandular openings and blood vessels uniformly distributed in a healthy Em; out of phase Em was present in 1 of 12 samples (Figure 2). Group C ( $n=8$ ), intra-uterine synechiae +/- obliteration of uterine cavity (Asherman's syndrome); out of phase Em was present in 3 of 5 samples (Figure 3). A pre-hysteroscopy TVS reconfirmed thin Em in all 34 cases, but it was Non-homogenous and/or non-trilaminar in 13 of 14 in group A, and 4 of 8 in group C. All 34 women subsequently underwent 6 cycles of high dose estrogen therapy. Aspirin or empirical antibiotics were added for those with abnormal Dopplers or suspected infection respectively. Follow-up TVS in 21 cases showed an endometrial thickness of 7.2 mm 2 cases and in the rest the Em remained  $\leq 6$  mm. A repeat Hy in 2 cases of Asherman's Syndrome (AS) confirmed disappearance of synechiae in both (figure 4). Six of 14 patients in group A, 11 of 12 in group B, and 4 of 8 in group C, attempted to conceive following Hy, resulting in 2, 1 and 2 singleton live births in groups A, B, and C respectively. There is an additional ongoing singleton pregnancy in group C. Four of 5 completed pregnancies were