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**OBJECTIVE:** The objective of this study was to review the advantage of pre-positioning a malleable stylet prior to the introduction of an embryo transfer catheter.

**DESIGN:** A retrospective analysis of excellent quality fresh embryo transfer results from January 1, 2000 through March 31, 2004.

**MATERIALS AND METHODS:** A total of 701 patients underwent fresh embryo transfers performed on Day 5 or Day 6 with excellent quality embryos. No practice embryo transfers performed. From January 1, 2000 to December 31, 2001, an initial embryo transfer was attempted using either a Wallace or Cook catheter alone. If the initial transfer attempt failed, repeated attempts followed, utilizing a Wallace or Cook catheter with a Wallace malleable stylet. Beginning January 1, 2002, a malleable stylet was pre-positioned in the cervical os prior to introduction of the embryo transfer catheter. In all transfers, embryos were transferred with approximately 15-20 µl of media and expelled with either a full column of air or media. An abdominal ultrasound (5 MHz) was used to assist the intrauterine placement of the embryo transfer catheter. Patients were requested to present with a full bladder to help in placement of the catheter.

**RESULTS:** See table.

	Not pre-Positioned Stylet	Pre-positioned Stylet
Total Number Transfers:	334	357
Patient Age (Mean):	34.9	34.9
Total Embryos Transferred:	669	720
Total Embryos Retained:	4	3
Average No. of Transfer Attempts:	1.1	1.0
Pregnancies (+hCG) / Clinical:	229 / 203	257 / 223
Pregnancy Rate (+hCG) per Transfer:	68.6%	70.0%
Pregnancy Rate (Clinical) per Transfer:	60.0%	60.8%
Implantation Rate:	45.3%	46.0%

**CONCLUSION:** From review of the data, no significant difference was noted for overall pregnancy (P=.6826), clinical pregnancy (P= 1.0) or implantation (P=.8293) rates between non pre-positioned and pre-positioned groups. There was a slight decrease in retained embryos and the average number of transfer attempts when an outer stylet was pre-positioned prior to transfer.

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#### P-584

**Effectiveness of Hysteroscopic Embryo Transfer: A Systematic Review and Meta-Analysis With an Indirect Comparison of Randomized Trials.** A. M. Abou-Setta, H. G. Al-Inany, R. T. Mansour, G. I. Serour, M. A. Aboulghar. The Egyptian IVF-ET Center, Cairo, Egypt.

**OBJECTIVE:** Embryo transfer is commonly accomplished in an essentially blind manner using catheters. Recent meta-analyses have demonstrated that indirect visualization of the transfer procedure using ultrasound-guided ET improves the pregnancy rates because the operator can 'visualize' the procedure. In recent years a new alteration in the embryo transfer technique has been described that uses a hysteroscope to deliver the embryos into the uterine cavity. Therefore we decided to systematically review and meta-analyse the available literature to determine whether this technique provides superior outcomes.

**DESIGN:** Systematic review of the use of hysteroscopic embryo implantation, and meta-analysis of prospective controlled trials comparing hysteroscopic embryo implantation with abdominal ultrasound-guided embryo transfer.

**MATERIALS AND METHODS:** A computerized search was conducted using MEDLINE (1978 to present), EMBASE (1980 to present), the Cochrane Central Register of Controlled Trials (CENTRAL) on the Cochrane Library Issue 2, 2005, the National Research Register (NRR) and the Medical Research Council's Clinical Trials Register. In addition the reference lists of all known primary studies and review articles were also examined to identify additional relevant citations. Furthermore, a

hand search of the citation lists of relevant publications, review articles, abstracts of scientific meetings and included studies have been searched for trials.

**RESULTS:** Two studies were retrieved discussing the use of a hysteroscope for either trans-cervical embryo transfer (Sweet et al., 2002) or blastocyst transfer (Kamrava and Yin, 2004). In the former study, the authors described using a hysteroscope vs. a Wallace catheter in a prospective randomized study entailing 77 cycles. In the fresh embryo transfer series, 34 Wallace catheter transfers were compared to 23 hysteroscopic transfers. In the frozen embryo transfer series, nine Wallace catheter transfers were contrasted to 11 hysteroscopic transfers. In the fresh embryo transfer series, the Wallace catheter transfers resulted in statistically significantly improved implantation rate (P = 0.004). The fresh embryo clinical pregnancy rates also was significantly in favor of the Wallace group (P = 0.015). Even though, the ongoing/delivered rates did not differ significantly between the two groups (P = 0.242). In the frozen embryo transfer series, the implantation rates were not significant (P = 0.358). Neither was the clinical pregnancy rates (P = 0.285) nor the ongoing/delivered rates (P = 0.285). In the latter study, the authors described a prospective, observational study of hysteroscopic blastocyst implantation. They described a high pregnancy rate (52.6%) and no ectopic pregnancies. For the purpose of the meta-analysis, four prospective randomized controlled trials were located that reported on using ultrasound-guided embryo transfer versus clinical touch embryo transfer with a Wallace catheter. The meta-analysis is currently underway and the results will be presented.

**CONCLUSION:** There is no strong evidence that hysteroscopic embryo, or blastocyst, transfer is more beneficial than either routine clinical touch or ultrasound-guided embryo transfer; especially high quality prospective, truly-randomized controlled trials comparing different embryo catheters, with or without ultrasound guidance to this new novel technique.

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#### P-585

**Conventional Oocyte Insemination May Result in a Better Pregnancy Outcome Than Intracytoplasmic Sperm Injection (ICSI) for Unexplained Infertility.** B. Katsoff, J. H. Check, J. K. Choe, J. W. Krotec, J. Amui. UMDNJ, Robert Wood Johnson Med. School, Marlton, NJ.

**OBJECTIVE:** In vitro fertilization-embryo transfer (IVF-ET) is frequently performed for unexplained infertility. Its efficacy may be by obviating an occult tubal factor - ovum pick-up problem or may be related to overcoming a fertilization problem. These fertilization problems may be related to failure of the sperm to meet the egg in the tube or the failure of sperm reaching the egg to cause fertilization. In the latter scenario inseminating with such a larger sperm concentration of 50,000 sperm may overcome the defect or the possibility that the sperm completely fail to attach to the zona pellucida and only ICSI would be effective. The objective of this study was to determine if ICSI offers any advantage over conventional insemination for unexplained infertility.

**DESIGN:** Retrospective review.

**MATERIALS AND METHODS:** Couples aged ≤43 with unexplained infertility were given the option of performing ICSI or not. To be considered unexplained infertility, the couple had to have a minimum of one year of infertility, with a semen analysis demonstrating a concentration of 20x10<sup>6</sup>/mL, 40% motility with at least 10% with linear progressive motion, strict morphology >4%, absence of antisperm antibodies and hypo-osmotic swelling test score ≥50%. The female partner (with or without corrective measures) had to demonstrate a mature follicle, oocyte release by ultrasound, patent tubes by at least hysterosalpingogram, normal post-coital test and in-phase endometrial biopsy. The main reason for not performing ICSI was to save money on the extra expense from ICSI. A retrospective review was performed evaluating fertilization failure. Clinical and delivered pregnancy rates, and implantation rates according to whether ICSI was performed or not. Only transfers with 2 or more embryos were evaluated.

**RESULTS:** There were 107 transfers with ICSI vs. 91 without ICSI (54% chose ICSI). Failed fertilization occurred in 3 couples in both groups. The fertilization rate was 73.7% in the ICSI group vs. 63.7% in the non-ICSI group (p <.001). The average number of embryos transferred was 3.2 in each group. The clinical and delivered pregnancy rates for those having ICSI was 33.6% and 29.0% vs. 52.7% and 46.2% (p <.007, and p <.02,