

Objectives: To evaluate the effects of local bupivacaine administration on immediate and late postoperative pain in women undergoing operative laparoscopy.

Design: One hundred twenty participants undergoing laparoscopy for various gynecological indications were prospectively randomized into two groups: Group I, instillation of 10ml (25mg) of 0.5% bupivacaine into the trocar sites before incision, and 10ml of bupivacaine in 100ml of normal saline intraperitoneally at the completion of the procedure. Group II: instillation of equal volume of sterile saline into the trocar sites before incision, and intraperitoneally at the completion of the procedure (controls).

Materials and Methods: A standard protocol for general anesthesia was used for all patients. All laparoscopic procedures were performed by the same surgeon using three-puncture techniques. After surgery, patients were observed in the recovery room for three hours. The recovery room personnel who were blinded to the study recorded return of consciousness, Modified McGill Pain Intensity scores, presence of nausea or vomiting, frequency and the dose of analgesic given. 24-hours after discharge each patient underwent a telephone interview for the presence of nausea and vomiting, pain intensity score, time and the amount of analgesic used.

Results: A total of 112 patients completed the study (55 patients in group I and 57 patients in group II). There were no significant differences between the two groups in age, body mass index, surgical procedure performed, duration of surgery, return of consciousness, nausea or vomiting, Modified McGill Pain Intensity scores, time to first analgesic and mean analgesic medication used in the recovery room during the 3-hours observation and at 4, 8, 16, 20 and 24 hours after discharge.

Conclusions: Local installation of bupivacaine is ineffective in reducing post laparoscopic pain.

Wednesday, October 25, 2000
2:45 P.M.

O-227

Laparoscopic Management of Hydrosalpinges (HYDRO) Prior to In Vitro Fertilization-Embryo Transfer (IVF-ET): Salpingectomy vs. Proximal Tubal Occlusion (PTO)? E. S. Surrey, W. B. Schoolcraft. Colorado Center for Reproductive Medicine, Englewood, CO.

Objectives: Several investigators have demonstrated that HYDRO may exert a deleterious effect on IVF-ET cycle outcome with improved results after surgical correction (*Fertil Steril* 1998;69:373-84). The relative effects of different surgical interventions on ovarian blood supply and endometrial receptivity have not been demonstrated. The objectives of this study were to compare ovarian response and IVF-ET cycle outcome in patients with HYDRO managed by laparoscopic salpingectomy or PTO.

Design: Retrospective chart review of all patients with a diagnosis of tubal factor infertility undergoing IVF-ET during a 12 month period in a tertiary care assisted reproductive technology program.

Materials and Methods: All patients with a diagnosis of tubal factor infertility with early follicular phase FSH levels <10 mIU/mL, E₂ levels <80 pg/mL, and hysteroscopically normal uterine cavities who were candidates for autologous IVF-ET were included (104 cycles). Patients were divided into 4 groups—Group I: HYDRO managed by laparoscopic salpingectomy (35 cycles); Group II: HYDRO managed by laparoscopic bipolar cautery PTO (17 cycles); Group III (Control): Tubal factor without HYDRO or prior bilateral tubal ligation (BTL) (37 cycles); Group IV (Control): Prior BTL for sterilization (15 cycles). There were no differences in HYDRO size or extent of adhesions between Grs. I and II. Response to controlled ovarian hyperstimulation (COH) and IVF-ET cycle outcome were evaluated. Pregnancy (PR) and implantation (IR) rates were defined as cardiac activity per ET procedure. Data analysis: Student's grouped t-tests and chi square analysis as appropriate.

Group	Cycles	Age	U.A. P.I.	COH days	COH ampules	Cancellation (%)
I	35	35.1 ± 0.7*	3.1 ± 0.3‡	9.5 ± 0.2‡	41.0 ± 2.5‡	17.1‡
II	17	35.4 ± 1.0†‡	3.4 ± 0.4†‡	10.1 ± 0.4†‡	51.1 ± 3.9†‡	5.9†‡
III	37	35.6 ± 0.7	2.9 ± 0.2	9.8 ± 0.2	43.5 ± 2.7	5.4
IV	15	38.2 ± 1.0	2.6 ± 0.1	9.3 ± 0.3	43.3 ± 3.4	20

E ₂ day of hCG (pg/mL)	Oocytes	Embryos transferred	PR (%)	IR/ET (%)
2555 ± 219‡	16.2 ± 1.2‡	2.8 ± 0.2‡	57.1‡	29.2 ± 5.9‡
2366 ± 282†‡	14.4 ± 1.8†‡	3.5 ± 0.4†‡	46.7†‡	19.4 ± 6.1†‡
2925 ± 259	17.5 ± 1.8	3.2 ± 0.2	52.9	25.4 ± 5.6
2479 ± 281	12.2 ± 1.3	3.0 ± 0.3	58.3	36.1 ± 11.3

Conclusion: 1) Pre-IVF cycle management of HYDRO by laparoscopic salpingectomy or bipolar PTO yielded similar responses to COH and cycle outcome which were not significantly different from controls; 2) PTO may therefore be preferable in patients with HYDRO and dense pelvic adhesions with easy access only to the proximal portion of the fallopian tube.

Wednesday, October 25, 2000
3:00 P.M.

SRS Prize Paper

O-228

Assessment of Pelvic Adhesions: Statistical Validation, Reliability and Inter-Observer Correlation Using a Modification of the More Comprehensive Adhesion Scoring Method (MCASM). ¹A. E. Bacevice, ²E. J. Bieber, ³R. C. Dunn, ⁴S. M. Rosenberg, ⁵K. M. Silverberg, ⁶A. Strandell. ¹St. John West Shore Hospital, Westlake, OH ; ²University of Chicago, Chicago, IL ; ³Texas Gynecologic Associates, Houston, TX ; ⁴Richmond Center for Fertility and Endocrinology, Richmond, VA ; ⁵Texas Fertility Center, Austin, TX ; ⁶Sahlgrenska Hospital, Göteborg, Sweden; ⁷Physicians Research Options, Salt Lake City; UT ; ⁸Gliatech Inc., Cleveland, OH ; ⁹Boston Biostatistics, Inc., Framingham, MA ; ¹⁰Wayne State University, Detroit, MI.

Objective: The MCASM (*Fertil Steril*, 62:984-88, 1994) is a method of scoring adhesions during pelvic surgery, and is based on the incidence of adhesions at 23 predetermined anatomical sites. A modified scoring system was developed by collapsing the 23 anatomical sites to 16 sites. The objective of this study was to test whether the less cumbersome 16 site modified scoring system provides a valid, reliable method for surgeons to assess adhesions at the time of laparoscopic pelvic surgery.

Design: Eight gynecological surgeons independently reviewed the same eight videotapes of laparoscopic adhesiolysis surgeries. Outcomes measured were number of adhesions per patient, number of anatomical sites with adhesions for each patient, and estimated surface area of adhesions.

Materials and Methods: Surgeons were trained as a group by an independent principal investigator surgeon on the standardized method for recording adhesions. The tapes were masked as to the identity of the operating surgeon, and reviewed by each surgeon in a randomized order (8 × 8 Latin Square design). Interobserver variability was evaluated using analysis of variance (ANOVA). Surgeon effect was tested using the F-statistic, and the intraclass correlation coefficient (r) and 95% confidence intervals (CI) were calculated as measures of reliability.

Results: High reliability was observed for the number of adhesions, and the number of anatomical sites with adhesions (r=0.728 [95% CI: 0.532, 0.925] and 0.721 [95% CI: 0.515, 0.927] respectively). Reliability was also positive for surface area of adhesions (r=0.573, 95% CI: 0.356, 0.790). These positive reliability results were obtained despite some significant interobserver variability, indicating that variability among videotapes was greater than among surgeons. No differences in reliability were observed between the 16 and 23 site methods for sites or number of adhesions (both r>0.7), indicating validity of the modified scoring method.

Conclusion: This modified 16-site MCASM provides a less cumbersome, yet comprehensive, valid and reliable method for surgeons to evaluate pelvic adhesions.

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