

the clinical pregnancy rate (CPR) is not worse and no influence of embryo implantation was found, which may represent a different clinical entity.

Supported by: None.

**P-447**

**MINIMIZING THE RISK OF HIGH ORDER MULTIPLES WITHOUT COMPROMISING PREGNANCY RATES: ONE CENTER'S 5-YEAR EXPERIENCE WITH OVULATION INDUCTION.** E. Fino, D. A. Keegan, A. Edenfield, L. C. Krey, J. Grifo. NYU Fertility Center, New York University School of Medicine, NY, NY.

**OBJECTIVE:** To analyze a single center's experience with ovulation induction (OI) and compare pregnancy rates and risk of high order multiple pregnancy (HOMP) in clomid (CC) and gonadotropin cycles.

**DESIGN:** Retrospective analysis of OI with intrauterine insemination (IUI).

**MATERIALS AND METHODS:** OI cycles performed in 1/00–1/05 including CC, gonadotropins, and canceled IVF (cIVF) were evaluated. Monitoring was performed with ultrasound (US), serum estradiol (E2) and luteinizing hormone (LH). Human chorionic gonadotropin was given when the lead follicle was  $\geq 17$ mm. IUI was performed 24–36 hrs after hCG. Clinical pregnancy (CPR) was defined as a sac (GS) on US. Age, gonadotropin and CC dose, peak E2, and # of follicles were evaluated.

**RESULTS:** 3320 cycles were evaluated. Mean ( $\pm$  SD) age was  $37 \pm 4$  and # of cycles/patient was  $2 \pm 1$ . There were 375 +hCG results: 225 (15%), 127 (10%) in CC cycles and 23 (5%) in cIVF cycles. CPRs were 13% and 10% in the gonadotropin and CC cycles. The rate of twin, triplet and quadruplet gestations was: 10%, 2% and 0.5% respectively. The data was analyzed to evaluate the trend over 5 yrs.

Only 2 pregnancies resulted in  $\geq 4$  GS: both eventuated in singleton births after spontaneous and/or selective reduction. In gonadotropin cycles, CPR was highest (15%) and the HOMP lowest (2%) in 2004. In this group, the mean ( $\pm$ SD) peak E2 was 686 ( $\pm 392$ ) pg/ml, # follicles/pt was 3.7 ( $\pm 2$ ). The mean dose was 150 IU/day. 81% of patients started on  $\leq 150$  IU/day. There were no HOMP in the cIVF cycles, but the CPR was only 4%.

TABLE

	Clomid			Gonadotropin		
	2000–2001	2002–2003	2004	2000–2001	2002–2003	2004
pts (n)	593	447	252	665	504	297
CPR n(%)	43 (7)	43 (10)	25 (10)	80 (12)	70 (14)	44 (15)
2GS	3 (6)	1 (2)	1 (4)	16 (17)	8 (10)	7 (13)
2FH	2 (4)	1 (2)	1 (4)	13 (14)	5 (6)	5 (10)
3GS	0	0	0	6 (7)	2 (2)	0
3FH	0	0	0	5 (5)	2 (2)	0
4GS	0	0	0	1 (1)	0	1 (2)
4FH	0	0	0	0	0	1 (3)

Only 2 pregnancies resulted in  $>4$  GS: both eventuated in singleton births after spontaneous and/or selective reduction. In gonadotropin cycles, CPR was highest (15%) and the HOMP lowest (2%) in 2004. In this group, the mean ( $\pm$ SD) peak E2 was 686 ( $\pm 392$ ) pg/ml, # follicles/pt was 3.7 ( $\pm 2$ ). The mean dose was 150 IU/day. 81% of patients started on  $<150$  IU/day. There were no HOMP in the cIVF cycles, but the CPR was only 4%.

**CONCLUSIONS:** The risk of HOMP with CC is very low: no HOMP over 5 yrs. The rate of HOMP in gonadotropin cycles has declined over 5 yrs, while the CPR has not only been maintained, but has actually increased. This trend is attributed to our use of low dose gonadotropin protocols, strict follicular monitoring, and cancellation of cycles with high E2 or multiple follicles. Less aggressive stimulation and strict monitoring reduces HOMP without compromising the CPR.

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**P-448**

**AN ASSESSMENT OF THE USE OF ADHESION PREVENTION THERAPY IN A REAL-WORLD SETTING.** M. S. Broder, C. Ory, E. Chang, J. Kemner. Partnership for Health and Analytic Research, Los Angeles, CA; Ethicon Inc., Somerville, NJ.

**OBJECTIVE:** Clinical complications associated with adhesions are costly to the health care system, and there is a lack of real world utilization data of adhesion prevention therapy. This study identifies utilization patterns over a 6-year period.

**DESIGN:** This was a retrospective analysis using a large national hospital discharge database.

**MATERIALS AND METHODS:** All women with a primary claim for abdominal/pelvic procedures according to *International Classification of Disease, 9th Revision (ICD-9)* from January 1, 2000 to December 31, 2005 were identified. The procedures were broadly categorized as open or laparoscopic and further stratified by type of procedure, diagnosis, and surgical specialty. The use of adhesion barriers for these procedures was determined using the supply records.

**RESULTS:** A total of 2,642,950 abdominal/pelvic procedures were performed during the 6-year period, of which 78.5% were open procedures. Adhesion prevention therapy, which included INTERCEED® and Sefrafilm®, was used in only 1.68% of total procedures whereas approximately 98% of the procedures did not use any adhesion barrier. With respect to the type of procedures, there were 62,296 adhesiolysis procedures, 71,782 oophorectomies, 452,599 hysterectomies, and 92,486 tubal procedures. Adhesion prevention therapy was used in 6.5%, 4.9%, 2.4%, and 1.5%, respectively. Regarding type of diagnosis, for 195,022 procedures, the diagnosis recorded was endometriosis; pelvic pain 101,871; and 8,077 infertility. Adhesion prevention was used more frequently with a diagnosis of infertility (8.8%) followed by pelvic pain and endometriosis (4.5% each). Use of adhesion barrier was seen more among obstetrics and gynecologists (2.1%) followed by other surgical specialty (1.6%) and general surgeons (1.2%).

**CONCLUSIONS:** The use of adhesion prevention therapy in abdominal and pelvic procedures is minimal in a real-world setting. Low use rates may increase adhesive complications and therefore healthcare costs.

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**CONTRACEPTION**

**P-449**

**FERTILIZATION RATES FROM CONVENTIONAL IVF INSEMINATION DIFFER ACCORDING TO THE NUMBER OF EGGS PER DROP.** M. J. Abeyta, S. Shen, M. I. Cedars, P. F. Rinaudo, M. P. Rosen. Obstetrics, Gynecology, and Reproductive Sciences, University of California, San Francisco, San Francisco, CA.

**OBJECTIVE:** Although high fertilization rates can be achieved in the majority in vitro fertilization cycles, the method for insemination is not standardized, e.g., eggs are inseminated individually or in groups in media drops under oil, open dishes, or tubes. There is evidence to show smaller media drops, and increased number of eggs per drop, increased fertilization rates in pig experiments. The purpose of our study is to determine whether fertilization rates in humans are affected by the number of eggs in a single insemination drop.

**DESIGN:** Prospective study.

**MATERIALS AND METHODS:** The study population consisted of a total of 868 eggs, from 50 patients, undergoing conventional IVF between 04/2006 to 03/2007. Four to six hours post retrieval, eggs were randomly placed into 200  $\mu$ L insemination media drops under oil, with one, two, or three eggs per drop, for each patient, thus controlling for oocyte and sperm quality. Insemination concentration was 100,000 sperm/mL with 2 to 10  $\mu$ L of sperm suspension added to each drop. Normal fertilization, according to the number of eggs per drop, was compared. The denominator used for calculating fertilization rate was total eggs inseminated within each category. A repeated-measure-regression was performed using generalized estimated equations. Tests were declared statistically significant for a two-sided *P*-value  $<0.05$ .

**RESULTS:** The overall normal fertilization rate was 58.7% per inseminated egg which is representative of our patient population. Normal fertilization rate significantly increased with increasing egg number per drop (table) (OR = 1.35, *P*=0.025, CI [1.04–1.74]).

TABLE. Fertilization rates according to the number of eggs per drop

	1 egg/drop	2 eggs/drop	3 eggs/drop
# of Eggs	144	416	308
2PN Rate*	54%	58%	62%

\* *P*=0.025.