

OBJECTIVE: To assess the effectiveness of hysteroscopic aqua-dissection of fallopian tubes as a fertility enhancing tool in cases of infertility of long duration with pelvic tuberculosis.

DESIGN: A retrospective study of 100 cases of long standing infertility with pelvic tuberculosis and to evaluate the results of controlled hysteroscopic aquadissection.

MATERIALS AND METHODS: 100 cases of pelvic tuberculosis diagnosed on the basis of abnormal hysteroscopy findings Supported by PCR for mycobacterium / AFB culture / histopathology / quantiferon gold / high ESR / chest x-rays / previous history or family history of tuberculosis. All the cases were of 25 to 35 years of age suffering from infertility of more than 7 years duration and had undergone more than 4 cycles of ovulation induction, had at least one HSG more than a year back. All cases were subjected to controlled hysteroscopic aquadissection of fallopian tubes in two stages and were given course of anti-tubercular medication with minimal four drugs for two months and three drugs for four months and the pregnancy outcome was evaluated in relation to the hysteroscopic aquadissection.

RESULTS: Out of 100 cases studied between 2007 - 2013, a total of 52 cases became pregnant after the hysteroscopic aquadissection and antitubercular medication in cases of pelvic tuberculosis diagnosed on the basis of grossly abnormal hysteroscopy findings with or without other supportive markers. 43 had term delivery, 5 cases had preterm delivery between 34-35 weeks of gestation and 2 cases had missed abortion and 2 cases had anembryonic pregnancy.

CONCLUSION: Hysteroscopy is an important diagnostic and fertility enhancing tool and controlled hysteroscopic aquadissection of fallopian tube must be considered in cases who can not bear expensive IVF treatment.

P-63 Tuesday, October 15, 2013

FROZEN EMBRYO TRANSFER PREGNANCY OUTCOMES IN BREAST CANCER PATIENTS WHO WERE STIMULATED WITH LETROZOLE-FSH FOR FERTILITY PRESERVATION. G. Bedoschi,^{a,b} V. Turan,^{a,b} K. Oktay,^{a,b} ^aObstetrics and Gynecology, New York Medical College, Valhalla, NY; ^bInnovation Institute for Fertility Preservation and In Vitro Fertilization, New York, NY.

OBJECTIVE: Aromatase inhibitor letrozole, has been used in ovarian stimulation protocols for fertility preservation in women diagnosed with breast cancer. However, pregnancy outcomes have not been reported. Here we evaluated the frozen embryo transfer (FET) pregnancy outcomes in breast cancer patients who underwent ovarian stimulation with letrozole-FSH protocol before adjuvant chemotherapy for fertility preservation by embryo cryopreservation.

DESIGN: Prospective cohort study.

MATERIALS AND METHODS: Twenty-eight patients diagnosed with breast cancer \leq stage 3 underwent FET to self (ST) or gestational carriers (GC). All patients underwent ovarian stimulation with letrozole (5mg/day) starting on cycle day (CD) 2 and gonadotropins 150-450 IU on CD 4. Pregnancy outcomes were assessed and compared to age-matched SART data from 2011.

RESULTS: The mean age at cryopreservation was 36.6 ± 4.3 years. Of the 34 embryos transfers performed, 19 (55.9%) were with a GC. The mean number of embryos transferred was 2.0 ± 0.53 . Overall clinical pregnancy (CP) per FET, live birth (LB) per FET and implantation rates were 64.7% (22/34), 35.3% (12/34) and 36.6%, respectively, 58% of the pregnancies were twins, no higher order pregnancies encountered. The mean gestational age was 36.7 ± 3.6 and mean birth weight was 2918.5 ± 234.7 . No anomalies occurred. The LB rates with FET after letrozole-FSH stimulation was comparable to that of reported in 2011 SART data (35.3% vs. 35.7%; p value = 0.55; patients with 35-37 years of age, data from 6665 frozen embryo transfers in non-donor oocyte cycles, mean number of embryos transferred 1.8).

CONCLUSION: FET with embryos generated after ovarian stimulation with Letrozole-FSH protocol in breast cancer patients results in outcomes comparable to those seen in general infertility population.

Supported by: NIH R01 HD053112 and R21 HD061259.

P-64 Tuesday, October 15, 2013

SINGLE BLASTOCYST TRANSFER IN PATIENTS UTILIZING VITRIFIED DONOR OOCYTES FROM A DONOR BANK. Y. Shu,^{a,b} W. Peng,^a J. Zhang,^a ^aNew Hope Fertility Center, New York, NY; ^bCenter for Reproductive Medicine, Wake Forest University School of Medicine, Winston Salem, NC.

OBJECTIVE: Compared to fresh donor oocytes, cryopreserved donor oocytes are more convenient for a recipient since no synchronization is needed between recipient and donor cycles. We assessed the outcome and feasibility of single blastocyst transfer in patients utilizing vitrified donor oocytes from an oocyte bank.

DESIGN: We retrospectively reviewed the outcomes of 72 patients receiving cryopreserved donor oocytes from an oocyte bank between Jan 2008 and Dec 2010. Among them single blastocyst transfer was performed in 42 patients.

MATERIALS AND METHODS: Donor oocytes were vitrified by the Cryotop method and stored under shared donor oocyte program. The mean age of oocyte donors was 28.6 ± 0.3 years old. Four hours after warming, vitrified oocytes were fertilized by ICSI and cultured until day 3 when a decision was made regarding the timing of embryo transfer based on the number of fertilized oocytes and embryo quality.

RESULTS: An average of 4.5 vitrified donor oocytes (range 3-8) were warmed per recipient cycle, with an oocyte survival rate of 94.1% (176/187). More than half of cleaved embryos (56.5%, 78/138) developed to the blastocyst stage, among which 42 were transferred and 36 were re-vitrified. Nineteen clinical pregnancies were obtained following a single blastocyst transfer, with an embryo implantation rate of 45.2% (19/42). Of those who failed to become pregnant following the first transfer, 8 came back to initiate a frozen cycle using re-vitrified blastocysts, with three ongoing pregnancies and one miscarriage being obtained. Cumulative clinical pregnancy rate per warming cycle was 54.8% (23/42).

CONCLUSION: Single embryo transfer is the most effective way to minimize the chance of multiple births. Our results support the introduction of single blastocyst transfer for those receiving cryopreserved donor oocytes. To ensure the availability of one or two blastocysts for transfer on day 5, further study with larger sample size is required to determine the optimum number of cryopreserved donor oocytes to be warmed.

P-65 Tuesday, October 15, 2013

EVALUATION OF NEUTRAL RED INFLUENCE ON THE DEVELOPMENT OF MACAQUE SECONDARY FOLLICLES IN 3-DIMENSIONAL CULTURE. D. L. Bulgarelli,^a A. Y. Ting,^b M. B. Zelinski,^{b,c} ^aDepartment of Obstetrics and Gynecology, Faculty of Medicine of Ribeirão Preto, University of São Paulo, Ribeirão Preto, Sao Paulo, Brazil; ^bDivision of Reproductive and Developmental Sciences, Oregon National Primate Research Center, Beaverton, OR; ^cDivision of Reproductive and Developmental Sciences, Oregon National Primate Research Center, Beaverton, OR.

OBJECTIVE: Neutral Red (NR) can be used as a non-toxic viability indicator in oocytes and granulosa/theca cells. Due to the dense stroma in primate ovarian cortex, NR may assist identification of preantral follicles in pieces of cortical tissue prior to cryopreservation in cancer patients requesting fertility preservation. However, its effect on long-term follicle viability and development in vitro has not been examined in primates.

DESIGN: Rhesus macaque follicles were studied individually during encapsulated 3D culture.

MATERIALS AND METHODS: Ovarian cortex from adult rhesus macaques (n=4, 8-11 years old, normal cycles), was cut into 1x1x0.5mm³ fragments, incubated in McCoys media with NR (50 μ g/ml) and washed for 10 min. Secondary follicles without (control) and with NR staining (NR) isolated, encapsulated into alginate (0.25% w/v), and cultured for 5 wks at 5% O₂ in α MEM supplemented with FSH. Follicle survival, growth, and antrum formation were analyzed.

RESULTS: Preantral follicles were readily visualized following NR staining. After 5 weeks in culture, survival rates were similar between control (71 \pm 13%) and NR (68 \pm 9%). The proportion of surviving follicles that formed an antrum were also similar between control (70 \pm 17%) and NR (48 \pm 24%). The percentages of surviving follicles that grew fast (reached >0.5 mm within 5 weeks; 24% vs 13%, control and NR, respectively), slow (250 micron - 500 micron; 66% vs. 60%) or did not grow (remained <250 micron; 10% vs. 27%) were similar between groups.

CONCLUSION: Neutral red does not affect secondary follicle survival and antrum formation. Neutral red is an efficient method to visualize viable preantral follicles in ovarian cortex. Whether pre-exposure to NR affects oocyte competence remains to be determined.

Supported by: NIH UL1 RR024926, R01AHD058293, PL1 EB008542, P51RR000163. NIH Fogarty International Center grant TW/HD-00668 to P. Michael Conn. (DLB. FAPESP (2011/18401-6).