in comparison to group A: lower gestational age (group B), lower birth weight (group B), higher number of babies (groups B and C), more often persistent Ductus arteriosus Botalli (group B) and more often postnatal death (group B).

Conclusions: Treatments of ovarian stimulation with/without insemination are as much responsible for the rise of multiple pregnancies as IVF/ICSI-treatments and maternal/neonatal outcomes were worse in this group. No difference in malformation rate could be found in this study. These findings are very important, as in most countries non-IVF ovarian stimulation treatments are done by general physicians. Measures as training for non specialists should be encouraged.

O-234 Influence of assisted reproductive technologies in the prevalence of congenital defects. Study on low risk of congenital defects population

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Introduction: Currently half a million children are born from pregnancies obtained using assisted reproduction techniques (ART), in Spain it is about 2% of total births per year. ART has changed considerably and quickly. Congenital defects associated with ART have been the subject of numerous studies with conflicting results. This study reflects the situation in our population.

Material and Methods: Study period of 3 years (January 2007 - December 2009) with a total of 12,478 pregnancies. We performed a retrospective assessment of the prevalence of congenital defects in pregnant women on the gestational low-risk population in our health area, and evaluated the influence of assisted reproduction techniques (IVF-ICSI) in the presence of congenital defects and the diagnostic ability of filtering for congenital defects in our area.

Filtering for congenital defects is a combined test for screening of chromosomal anomalies (11-13 weeks) and morphological ultrasound scan performed at 18-22 weeks in fetal medicine unit.

Results: During the study period, there have been a total of 12,478 pregnancies with a number of 12,748 infants. 2.8% (349 cases) were multiple gestations, the cesarean rate was 20.5%, the average age of pregnant women is 29 year-old and 16.8% of women were aged 35 year-old (5.4% ≥ 38 year-old). The mean gestational age at birth was 38 weeks, 15% of births < 37 weeks (1.2% < 32 weeks). The 7.4% of newborns had a weight ≤ 2,500 grams (0.34% < 1,000g).

The group of pregnancies achieved by ART was 4.15% (519 pregnancies) with a mean age of 34 year-old and a twinning rate of 3.22%. The spontaneous pregnancy group was 11,959 pregnancies (95.8%) with a mean age of 28.4 year-old and a twinning rate of 1.5%. 282 fetuses (2.26%) had some type of birth defect. Of the total of newborns, the prevalence of congenital defects is 1.6% (204 cases) with 78 cases of terminations of pregnancy (47 structural malformation and 31 chromosomal anomalies). There have been 35 cases of chromosomal abnormalities (prevalence 0.28%), Down’s syndrome (DS) has been the most common chromosomal anomaly (28 cases, 80% of chromosomal abnormalities). The prevalence of congenital defects in ART group is 3.08% (prevalence of 2.3% malformation and chromosomal anomalies of 0.77%).

In the group of spontaneous pregnancies the prevalence of congenital defects is 2.2% (prevalence of 1.9% malformations and chromosomal abnormalities of 0.25%). We found an increase of malformations in the CNS (20% versus 12.5%) and cardiac (70% versus 31%) in the ART group.

The detection rate of malformations has been 80.56% (199 cases diagnosed) and 77.7% before 24 weeks (192 cases). 95.56% of major malformations (110 cases) has been diagnosed and 67.42% of the lowest (89 cases). The odds ratio for congenital defects and structural defects are 1.2 and 0.9 respectively. No differences were observed in detection rates between study groups (79.2% of spontaneous pregnancy versus 90% of ART).

Screening for chromosomal anomalies was offered to 95.11% pregnant women. Obtaining a combined test sensitivity of 76.92% for DS and 72.78% for every chromosomal abnormalities. The false positive rate of combined test is 4.31%. Adding morphological ultrasound test by combining the rate of diagnosis of DS is thus 93.93%. No differences were observed in the rate of diagnosis between the study groups (77% spontaneous pregnancy versus 75% of ART).

Conclusions: In our low-risk population, ART does not pose an increased risk of structural malformations.

O-235 Stopping smoking in the periconceptional period ameliorates effects of smoking on perinatal outcomes

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Introduction: Smoking during pregnancy is known to be associated with poorer perinatal outcomes, such as intrauterine growth retardation. However, while much effort is put into convincing smokers to stop when pregnant or before, it remains uncertain whether stopping smoking in the periconceptional period is effective in improving perinatal outcomes. In this study we describe a dose dependent effect of smoking on birthweight, gestation and head circumference, and demonstrate that these effects can be completely ameliorated if the woman stops smoking in the periconceptional period.

Material and Methods: Between 2002 and 2010, clinical, lifestyle and socioeconomic data was collected from all women booking for pregnancy in a large University Medical Centre and prospectively entered into a database. Particular focus was on women’s smoking behaviours which were described in 7 groups: non-smokers, smokers who had stopped more than 1 year prior to conceiving, smokers who had stopped less than 1 year prior to conceiving, smokers who stopped when pregnancy was confirmed, and those who continued to smoke up to 10/day, 10-20/day or > 20/day. Subsequent perinatal outcomes were also recorded. Following cleaning of the database and anonymisation of patient data, the relationship between smoking behaviour at booking and gestational age at birth, birthweight and head circumference was analysed by one-way ANOVA with transformation necessary to compare means. A general linear model was constructed, and correction applied for a priori identified confounding variables.

Results: 52.0% of the women were reported to be non-smokers, 10.9% reported smoking up to 10/day during pregnancy, 7.2% smoked 10-20/day and 0.8% smoked > 20/day. 14.2% had stopped more than 1 year prior to pregnancy, 6.8% had stopped during the year prior to conceiving and just 8.3% stopped when had been pregnancy confirmed. Univariate analysis showed the mean ± SD of birthweight (kg) in non-smokers to be 3.43 ± 0.55; falling to 3.24 ± 0.56 in those smoking up to 10/day and further to 3.17 ± 0.57 in those smoking 10-20/day and 3.11 ± 0.59 in women who smoked > 20/day. However, women who had stopped smoking > 1 year prior to conception, < 1 year prior to conception, or when pregnancy had been confirmed gave birth to babies with a birthweight similar to that of never smokers (3.50 ± 0.56, 3.45 ± 0.57, and 3.45 ± 0.55 respectively). Similar findings and trends were observed regarding head circumference and gestational age at birth. After correction for gestational age, and additional confounding variables including age at booking, BMI and socioeconomic class, the dose dependent effect of smoking on birthweight and ameliorative effect of stopping smoking in the periconceptional period remained statistically significant (p < 0.05).

Conclusions: These data demonstrate a dose dependent effect of periconceptional smoking pattern on birthweight, and provide confirmation that altering smoking behaviours in the periconceptional period can ameliorate these effects.
higher survival rates and well preserved viability. These technical developments provide the possibility of considering the application of eSET also after oocyte cryopreservation in an appropriate patient population. Because currently no data exist on the efficiency of eSET following oocyte cryopreservation, we sought to evaluate clinically its applicability in a patient population using donated oocytes.

**Material and Methods:** A total of 440 donor egg recipients were initially included in the study in the period of January 2009 to December 2010. Oocytes were obtained from donors younger than 30 years old, screened and tested according to ASRM and FDA guidelines. Oocytes were vitrified 40h after HCG trigger using the minimal volume method. On the day of ICSI, 4 to 8 eggs were warmed (per recipient) and embryos were cultured to day-5, the blastocyst stage. If 3 (or more) high quality embryos were obtained, patients received either a single embryo (eSET; 98 patients) or a double embryo transfer (eDET, 109 patients). Another 233 patients who did not have 3 high quality embryos, were excluded from possible eSET, and always received 2 Es for ET (DET).

Clinical and laboratory parameters were computed and analyzed by One-way ANOVA or by the Fisher's exact test, with P < 0.05.

**Results:** In the eSET, eDET and DET groups, age of recipients were 42.0 (± 4.2), 41.3 (± 4.4) and 41.1 (± 4.6) (NS) and the mean number of eggs warmed were 5.9 (± 1.5), 6.4 (± 1.7) and 6.2 (± 2.1) (NS); survival rates were 91%, 91% and 85% (P < 0.05) and fertilization rates were 88%, 91% and 83% (P < 0.05) and blastocyst development rates were 69%, 64% and 47% (P < 0.05) and implantation rates were 52%, 51% and 38% (P < 0.05) respectively (for variables where P < 0.05 it was always between the DET group versus eSET and eDET groups but never between the eSET and eDET groups).

Clinical pregnancy (CP) rate was 72% in the eDET group which was statistically significantly higher (P < 0.005) than the CP in the eSET (52%) or in the DET (52%) groups. No multiple pregnancy occurred in the eSET group, but in eDET was 51% and in DET was 30% (P < 0.05).

**Conclusions:** The outcomes of the current study demonstrate that it is possible to achieve high clinical pregnancy rates with single embryo transfer after oocyte cryopreservation, which further confirms the robustness of egg vitrification technique. It is particularly challenging to perform single embryo transfer in many countries, including USA, where the mindset of patients is for multi-embryo transfer. In summary, this study results may be applicable to the success of IVF treatment; thus the result of this study may help to encourage the wider use of eSET. The very high multiple pregnancy rate in the DET group (51%) demonstrates that when embryos are single in number only a single embryo should be transferred as standard. The high multiple pregnancy rate in the DET group (30%) indicates that further refinement of selection criteria for eSET may be needed, which may be explored by future studies. In summary, this study results may be the first to demonstrate the successful clinical application of eSET in an oocyte cryopreservation program using appropriately selected patient population.

**O-237 Prediction of suitability for becoming an egg share donor**

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**Introduction:** Oocyte donation is an effective treatment for women with premature ovarian failure due to various causes and significantly reduced ovarian reserve. Whilst there is a paucity of ultrasonic egg donors, egg share scheme has become an efficient use of oocyte resource. This aims to reduce the imbalance between the large number of potential recipients and the small number of available donors and allows women requiring IVF and having insufficient funds for her own treatment to access IVF treatment at a significantly reduced cost. The egg share donors share the eggs equally with phenotypically matched recipients, if 8 or more eggs are retrieved. However, if there are ≤7 eggs retrieved, the donor keeps all the eggs for her own treatment leading to cancellation of the recipient’s treatment. Therefore, it is important to predict the suitability of women to become egg share donors prior to enrol them into egg share programme. The objective of this study was to predict the suitability of a woman to become an egg share donor using clinical (age, body mass index), endocrine (basal FSH, FSH/LH ratio, day 5 oestradiol) and ultrasound variables (antral follicle count-AFC, ovarian volume, vascular indices).

**Materials and Methods:** 87 consecutive subjects undergoing their first cycle of IVF/ICSI through egg share programme using a conventional long down-regulation protocol at an university based assisted conception unit were prospectively recruited over five years. Participants were aged < 36 years, having regular menstrual cycles with basal FSH level of < 10 IU/L and a BMI of ≤ 35 kg/m². Venepuncture and 3D transvaginal ultrasound were performed in the early follicular phase (day 2-5) of the spontaneous menstrual cycle immediately prior to treatment. Subjects were excluded if they had history of ovarian surgery or were found to have ovarian cyst of ≥20 mm in diameter or polycystic ovary syndrome (PCOS). If ≥ 8 oocytes were retrieved, the oocytes were split equally between donor and recipient. Retrieval of < 8 oocytes leads to recipient’s treatment cancellation, which was the primary outcome measure. The distribution of the data was checked for normality using a normal probability plot. Logistic regression analysis and Receiver Operating Characteristic (ROC) curve analysis were carried out to determine the predictive accuracy of the parameters.

**Results:** Analysis was performed on 77 subjects after excluding 10 subjects who had history of previous ovarian surgery, PCOS or ovarian cysts. Of the 77 subjects, 65 were able to share their eggs with the matched recipient (Group A). 12 subjects produced < 8 oocytes and were unable to share their eggs causing cancellation of the recipients cycle (Group B). Whilst the mean (± SD; range) AFC (23.8 ± 9.8; 7-54 versus 15.9 ± 6.6; 7-26) was significantly different (P < 0.05) between group A and group B, all the other variables measured including age (30.8 ± 3.3; 23-35 versus 32.1 ± 3.4; 24-35) and basal FSH (6.4 ± 1.5; 1.6-9.2 versus 7.0 ± 1.6; 3.7-9.1) were similar. Among all the variables studied, only the AFC was found to be the significant (P < 0.05) predictor of egg sharer’s inadequate ovarian response i.e. retrieval of < 8 eggs on logistic regression analysis (odds ratio: 95% confidence interval: 0.872; 0.773-0.983). ROC curve analysis confirmed that the AFC was the best predictor (AUC: 0.746). A cut-off value of ≤ 12 antral follicles gave the highest post-test probability (54.5%) with a likelihood ratio, sensitivity and specificity of 7.7, 44.4% and 94.2% respectively.

**Conclusion:** AFC is the best predictor to assess the suitability of a woman to enter an egg share programme. A woman with an AFC of at least > 12 at baseline scan has an increased chance of becoming a successful egg sharer.

**O-238 Exploring different criteria by 2D or 3D ultrasound for triggering final oocyte maturation in an oocyte donation program: a randomized pilot study**

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**Introduction:** Appropriate timing of induction of final oocyte maturation is critical to the success of IVF treatment. Recent advances in three-dimensional (3D) ultrasound technique have permitted its use in monitoring follicular development during controlled ovarian hyperstimulation. It is unclear, however, whether the “classical” triggering criteria established using two-dimensional (2D) sonography are directly applicable in the context of 3D follicular tracking. Preliminary studies suggest that follicular size is overestimated by 2 to 3 mm when using calculations based on 3D measurements. Therefore, the present randomized pilot study aimed to evaluate the effect of modifying triggering criteria when using 3D measurements in oocyte donor cycles.

**Material and Methods:** Forty-two oocyte donors undergoing ovarian stimulation with a fixed GnRH antagonist stimulation protocol at a private infertility centre in December 2010 were included in this randomized pilot study. Briefly, gonadotropin stimulation was started on day 2 of a spontaneous menstrual cycle with a 150-300 IU starting dose of recombinant FSH. The daily GnRH antagonist (0.25 mg/day) was introduced on stimulation day 6 and continued until triggering day. Induction of final oocyte maturation was performed exclusively with GnRH agonist triptorelin 0.2 mg s.c. Its timing was based on the presence of at least 3 follicles with the following ultrasonic criteria: (group A, n = 11) ≥ 18 mm as measured by the mean of two largest perpendicular diameters with 2D ultrasound; (group B, n = 9) ≥ 18 mm relaxed sphere diameter calculated from the volume of each follicle determined by 3D; (group C, n = 12) ≥ 21 mm using the same calculations as in the previous group; (group D, n = 10) ≥ 20 mm measured as the mean of the three largest diameters of individual follicles using 3D ultrasound. All measurements were performed with a GE Voluson i ultrasound equipment. In groups B–D, the SonoAVC software was used for 3D
O-239 Lesbian, single and heterosexual women: outcome of 3534 consecutive cycles of donor insemination (DI)
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Introduction: With the introduction of legislation in the UK making it easier for lesbian and single women to access donor treatment, we unavoidably confront the question of gamete shortages, payment and success rates. In January 2011, the HFEA launched a public consultation to re-examine aspects of donor recruitment which could have far reaching importance on clinical practice in the UK.

Material and Methods: Between January 2004 and December 2009, 1309 women attended the London Women’s Clinic for donor insemination (DI). This was seen as a steady increase from 450 cycles in 2004, reaching a peak of 822 in 2008. There was a small decline in 2009, with more patients opting for egg-sharing IVF. We report an analysis of 3534 consecutive DI cycles, which examines efficacy in relation to patient age and sexual orientation.

Results: The women ranged in age from 19 to 52 years with a mean age of 36.1 (± 4.53). The number of cycle attempts ranged from 1 to 14, with a mean of 2.4 (± 1.7), of which 49% were natural and 51% stimulated. 508 cycles (15%) were for heterosexual couples, 1681 (47%) for lesbian women (single or as a couple) and 1345 (38%) for single women whose sexual orientation was not specified. The highest live birth rates (LBR) over this 5-year period were in patients under the age of 36 years (11.5% per cycle, 29.5% per patient), with women aged 36-39 years achieving a lower LBR of 8.3% per cycle (21% per patient), and in the 40+ year age group 4% per cycle (9.3% per patient). This difference in LBR between age groups was significant (p < 0.001) and also when comparing sexual orientations (p < 0.001). No significant difference in LBR was noted between cycles with or without stimulation (p = 0.24).

Conclusions: As expected, the results show an inverse relationship between increasing age and live birth rate in both natural and stimulated cycles. Sexual orientation proved an important variable, with lesbians having a significantly higher LBR both per patient and per cycle. This can in part be explained by their lower age (34.9 years) in comparison to the single women (38.6 years).

O-240 The use of pentothal for anesthesia during oocyte retrieval is associated with decreased pregnancy rates as compared to propofol: a randomised controlled trial
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Introduction: Anesthesia is usually required during oocyte retrieval in order to increase the safety of the procedure and make it more tolerable for patients. For this purpose, either general intravenous or local anesthesia can be used.

Pentothal and propofol are anesthetics that are often used during intravenous general anesthesia, typically in combination with fentanyl which is an opioid analgesic. Although the use of propofol is believed to be associated with less side-effects, data from animal studies have also demonstrated that it has a detrimental effect on fertilization rates. Sufficient comparative data between these two anesthetics regarding their effect on the clinical outcome of in-vitro fertilization (IVF) are currently lacking.

The purpose of this randomized controlled trial is to assess whether the type of anesthetic used for oocyte retrieval is associated with fertilization rates during IVF.

Materials and Methods: One hundred and fifty six consecutive patients undergoing ovarian stimulation for IVF were included in the current study, after having signed an informed consent, regardless of their age, previous number of trials or previous response to ovarian stimulation. Ovarian stimulation for IVF was performed by using recombinant or urinary FSH at a variable starting dose and gonadotrophin releasing hormone (GnRH) antagonists. Patients were randomized to receive either pentothal (n=75) or propofol (n=81) in combination with fentanyl for anesthesia during oocyte retrieval. Statistical analysis was performed by using the Student’s t test for continuous and Chi-square test for binary variables. Statistical significance was set at p < 0.05.

Results: No significant differences were present between the pentothal and the propofol groups, regarding female age (35.5 ± 5.0 vs. 35.4 ± 6.0 years, respectively, p = 0.9), BMI (24.9 ± 4.7 vs. 25.3 ± 5.1, respectively, p = 0.6), number of previous trials (1.9 ± 1.4 vs. 2.2 ± 1.9, respectively, p = 0.2) and duration of infertility (5.4 ± 3.2 vs. 5.7 ± 3.5 years, respectively, p = 0.6).

The time under anesthesia was significantly increased in the pentothal group (13.0 ± 5.2 min vs. 10.7 ± 3.9 min, p = 0.002) and significantly more complications (mainly nausea and dizziness) were observed post-recovery in the pentothal group (32.0% vs. 37.4%, rate difference [RD]: +28.3%, 95% CI: +16.7 to +39.8), as compared to the propofol group.

The number of COCs retrieved (6.2 ± 5.2 vs. 5.8 ± 6.4, p = 0.7), the number of 2pn oocytes (4.0 ± 3.6 vs. 3.5 ± 3.6, p = 0.4) and fertilization rates (55.6 ± 29.9% vs. 54.1 ± 32.1%, p = 0.8) did not differ significantly between the pentothal and the propofol groups, respectively.

Embryo quality (assessed by the embryo score - ES) was also similar between the two groups on day 2 (ES pentothal: 37.1 ± 30.6 vs. ES propofol: 31.8 ± 23.9, p = 0.4) and on day 3 (ES pentothal: 67.9 ± 59.3 vs. ES propofol: 90.0 ± 90.1, p = 0.3) of embryo culture. The number of embryos transferred was also not significantly different between patients who received pentothal and those who received propofol (2.2 ± 0.8 vs. 2.2 ± 1.0, p = 0.9, respectively).

Clinical pregnancy rates were significantly lower in the pentothal group (12.0% vs. 24.7%; rate difference [RD]: -12.7%, 95% CI: -24.5 to -0.4, p = 0.04) as compared to the propofol group.

Conclusion: The data from the present RCT show that the use of pentothal during oocyte retrieval is associated with significantly lower clinical pregnancy rates and increased post-recovery complications as compared to the use of propofol.

O-241 The value of different means of support in shared decision making for single or double embryo transfer
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Introduction: The value of different means of support in shared decision making for single or double embryo transfer is of paramount importance. The aim of the present study was to assess the effectiveness of different means of support in shared decision making for single or double embryo transfer.
Introduction: A quarter of all pregnancies after in vitro fertilisation (IVF) are twins, with increased probability for maternal and neonatal complications compared to singletons. Elective single embryo transfer (eSET) is the most important option to prevent twins. Recently we have published an effective patient empowerment strategy that encourages the uptake of eSET without compromising couple’s autonomy for the decision for the number of embryos transferred (BMJ. 2010 Sep 30;341:c2501. doi: 10.1136/bmj.c2501). This empowerment strategy consisted of a decision aid (www.umcn.nl/livfda-en) with an enclosed reimbursement offer and two sessions with an IVF nurse (face to face counselling and a phone call). In this study we evaluated the relation between the couples’ decision for the number of embryos transferred and their exposure and experiences with these different elements of the empowerment strategy.

Methods: An observational study was performed in 222 randomised subfertile couples. Inclusion criteria for participation were: couples undergoing a first IVF cycle and female age < 40 years. An exclusion criterion was a strict medical indication for single embryo transfer. The control group (113 couples) received standard IVF care, including a preparatory session in which the number of embryos transferred was discussed. In addition to the standard IVF care, the intervention group (109 couples) received the different elements of the empowerment strategy. Multivariate regression analysis was used to determine the influence of exposure to the different strategy elements on the decision for the number of embryos transferred. Questionnaires evaluated the experiences with the different strategy elements, as well as determined the opinion of the couples concerning the influence of the strategy element for their decision for the number of embryos transferred.

Results: Multivariate analysis showed that two sessions with the IVF nurse had no additional benefit for eSET use compared to the decision aid with enclosed reimbursement offer. On the other hand, with respect to couples’ self rated importance of the strategy elements, couples felt that besides their physician’s advice, the counselling session with the IVF nurse and the decision aid were most important for their decision for the number of embryos transferred. The reimbursement offer and the phone call were regarded as less important for the decision compared to the decision aid, the counselling session and physician’s advice (p < 0.001).

Conclusions: With couples having received different elements of the empowerment strategy, we found no evidence for increased eSET use with adding counselling sessions with the IVF nurse. However, couples evaluated these sessions, as well as the decision aid, as the most important elements for their final decision for the number of embryos transferred. This creates an interesting consideration. Couples regard counselling with the IVF nurse as important for their decision, but it does not seem to encourage the eSET use. From a patient-centred point of view the counselling session may complement the decision aid, because this will result in an increased eSET use and therefore in less twin pregnancies and lower costs.

O-242  Uterine artery embolization with n-butyl cyanoacrylate for massive obstetric hemorrhage allows uterine fertility preservation

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Introduction: Although published opinions about the usefulness of uterine artery embolization (UAE) for massive obstetric hemorrhage vary, we perform UAE with liquid embolic n-butyl cyanoacrylate (NBCA) at our medical institution. NBCA, a fast-acting and permanent embolic agent, is a tissue adhesive that is mixed with the lipid contrast agent lipiodol.

In contrast to commonly used gelatin sponge (GS) techniques, the time to embolization and range of embolization are adjustable, and blood coagulability is not a requirement for embolization. UAE with NBCA is highly effective even in patients who would otherwise die or require a massive transfusion or hysterectomy. Post-UAE fertility is preserved in some patients, and some deliver successfully at a later date. We have already reported a case of a patient who became pregnant naturally and underwent elective caesarean section after embolization of uterine artery with NBCA for abruptio placentae. This manuscript discusses the findings of our investigation of patients who underwent UAE with NBCA over the past 5 years at our medical institution.

Materials and Methods: We investigated 18 pregnant women who underwent UAE with NBCA from January 2005 to February 2010 at our medical institution of a total of 24 pregnant women who underwent UAE during this period. The patients who underwent NBCA were patients with severe perinatal disseminated intravascular coagulation, patients with extravasation demonstrated by contrast-enhanced computed tomography or angiography, and patients failing to achieve hemostasis with GS. Fully informed consent was obtained in writing from the patient and a family member beforehand.

Results: Eighteen patients had received NBCA (maternal bleeding: n = 10, placental abruption: n = 2, uterine fibroid pregnancy: n = 1, placenta previa: n = 1, placenta accreta: n = 1, vaginal laceration: n = 1, amniotic fluid embolism: n = 1, cervical laceration: n = 1). Sixteen of the patients received NBCA without previous intervention, and 2 underwent additional embolization with NBCA after GS use. The mean blood loss, mean transfusion volume, mean minimum hemoglobin, median minimum platelet count and mean minimum fibrinogen in the 18 patients was 4693.3 ± 2839.1 mL, 9947.2 ± 9394.4 mL, 5.8 ± 1.9 g/dL, 71,000 per microliter, and 120 ± 94.4 mg/dL, respectively. GS was used as a first choice when patients were not clearly eligible for NBCA. The patients who then received NBCA if hemostasis was insufficient with GS tended to lose more blood than those initially receiving NBCA, but they also tended to require smaller volumes of red cell concentrate (RCC), fresh frozen plasma (FFP), and platelet concentrate transfusions. This is probably because NBCA itself acts as a coagulating factor for hemostasis. Follow-up was possible for 13 of the 18 patients who received NBCA. Seven regained menstruation, 4 became pregnant, and 3 delivered successfully. These previously unheard of outcomes are remarkable. Two delivered at term, and 1, who had placenta previa, underwent emergency Cesarean section at week 32 of gestation due to intensifying pregnancy-induced hypertension. Two of the offspring were free of abnormalities. The other was a cervical pregnancy. Three of the 4 patients became pregnant within 1 year of receiving NBCA. These findings demonstrate the fertility preservation achievable with perinatal artery embolization performed with NBCA.

Conclusions: UAE with NBCA, which produces embolization even when a coagulation abnormality is present, is minimally invasive and highly effective in patients with severe disseminated intravascular coagulation and other complications. Follow-up was possible for 13 of the 18 patients who received NBCA. Four became pregnant, and 3 delivered successfully. UAE with NBCA holds great promise for preserving fertility in patients who would otherwise die or require a massive transfusion or hysterectomy.

SELECTED ORAL COMMUNICATION SESSION
SESSION 62: ENDOMETRIUM, IMPLANTATION AND ENDOMETRIOSIS
Wednesday 6 July 2011 10:00 - 11:45

O-243  Maternal age, implantation and progression to live birth: a quantitative analysis of outcomes from the transfer of 24,016 embryos

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Introduction: The potential of an embryo generated in vitro to implant and develop to live birth following intrauterine transfer will be affected by a number of factors, most notably the age of the woman at the time of oocyte collection. In order to quantify the relative contributions to the age related decline in success rates of failure to implant and failure to progress to live birth, the present study analysed a large data set of embryo transfers with respect to embryonic attrition and female age.

Material and Methods: A total of 24,016 fresh embryos transferred in 16,242 transfer procedures between 2004 and 2009 were included in the analysis. Embryos generated from donated oocytes were excluded from the study. Embryo transfer was carried out on day 2 of development in 95% of the cases.