without treatment ($p < 0.00001$). There were fourteen singleton and six twin deliveries following IVF and one twin delivery in the untreated group.

Conclusions: This up-to-date and rigorous analysis of IVF effectiveness provides vital information for policy-makers, clinicians and patients, as they make decisions about funding and undertaking IVF treatment. It confirms that IVF offers a highly significant improvement in the chance of live birth, compared to observation alone, for women with persistent sub-fertility but evidence of tubal patency.

Tuesday, October 14, 2003
4:30 P.M.

O-191

Case report: Evidences of parthenogenetic origin of ovarian teratoma. Flavio G. Oliveira, Soraya Abdelmassih, Adriana Fracasso, Dmitri Dozortzev, Zsolt P. Nagy, Roger Abdelmassih. Clin e Ctr de Pesquisa em Reproducao Humana Roger Abdelmassih, Sao Paulo, Brazil; Reproductive Biology Assoc, Atlanta, GA.

Objective: Several theories have been postulated regarding the origin of ovarian teratomas, including incomplete twinning, neoplastic proliferation of sequestred totipotent blastomeres or primordial cells, depression of totipotent genetic information in the nuclei of somatic cells, and parthenogenetic development of germ cells. At present, parthenogenetic activation of oocytes is the most widely accepted theory, primarily because of presence of 46, XX karyotype in almost all mature teratomas. However, it remains a hypothesis as a finding of spontaneously activated developing embryo in ovarian teratoma patients has not so far been described. To the best of our knowledge we report the first observation of spontaneously activated developing diploid embryo in a patient with diploid ovarian teratomas.

Design: Case report.

Materials and Methods: A 29 year-old woman presented at our center with a history of primary infertility for 6 years. She had undergone left oophorectomy 4 years before due to ovarian teratoma. Ultrasound scan performed during basal evaluation revealed 2 complex images in the right ovary suggesting teratomas, sizing 2.5×2.4 cm and 1.7×1.3 cm. Despite such findings, a significant extent of sonographically normal ovarian parenchyma was present, being thus the patient submitted to a standard long GnRH agonist protocol of ovarian stimulation performed with recombinant FSH (Gonal F, Serono, São Paulo) for an IVF-ICSI cycle. Embryo transfer was carried out 72 hours after oocyte retrieval.

Results: The patient had 13MII, 4MI, 2GV oocytes and 1 four cells embryo retrieved. Eight out of 9 injected oocytes were normally fertilized and had two distinct polar bodies and one was unfertilized. Three out of 4 MI oocytes became MII. The four cells embryo recovered at oocyte retrieval continued to cleave in culture, developing into an excellent quality 7 cell embryo by the next day. The embryo was morphologically normal, presenting an evident nucleus in each blastomere and one polar body. FISH returned 2 signals for X chromosome. Chromosomal analysis of teratoma revealed 46XX genotype. Three embryos were transferred resulting in normal pregnancy.

Conclusion: The finding of spontaneously activated diploid oocyte in a woman with a history of diploid ovarian teratomas is unlikely to be coincidental. We therefore believe that our data confirm the theory of the origin of ovarian teratomas from oocytes activated during the transition between MI and MII prior to the extrusion of the first polar body. This origin is probably identical to that of teratomas described in some 30% of ovulatory oocytes of LT/Sv mice and may suggest a similar underlying mechanism. Also, similarly to LT/Sv mutant mice, only a small proportion of oocytes is exhibiting spontaneous activation pattern, while the majority of them is normal. Our data provide further evidences supporting a parthenogenetic origin of ovarian teratomas.

Tuesday, October 14, 2003
4:45 P.M.

O-192

Magnetic resonanse imaging evaluation of adenomyosis with in IVF patients′ pregnancy rate is linked to measures of junction zone. Pascal Piver, A. Maubon, M. Kapella, J. Gana, S. Paulhiac, Y. Aubard. Univ of LImoges, Limoges, France.

Object: To determine whether pelvic MR Imaging evaluation of adenomyosis is useful in IVF patients.

Design: A prospective clinical-radiological study of patients in IVF center.

Material and Methods: Ninety-seven patients of the IVF Center of Limoges University Hospital, who had 167 embryo transfers, underwent pelvic Magnetic Resonance Imaging (MRI) before IVF. Interpretation of MRI by an experienced radiologist included presence versus absence of adenomyosis, and measures of junction zone thickness in the anterior, posterior and fundic zones on sagittal cuts of the uterus. From these three measures, were calculated the average junction zone thickness (AJZ) and the maximal junction zone thickness (MJZ). These values were compared to IVF results.

Results: Pregnancy rate per patient in the adenomyosis group was 37%, in non-adenomyosis group 50% ($p = 0.03$).

AJZ in pregnant patients (5.2 mm) was compared to non pregnant (6.7 mm); $p = 0.0017$.

MJZ in pregnant patients (6.2 mm) was compared to non pregnant (10.4 mm); $p < 0.0001$.

Pregnancy rate also differed in sub-groups determined according to "AJZ 7" and "MJZ 10", and "AJZ $>$ 7 combined with MJZ $>$ 10 versus other combinations".

Pregnancy rate per patient was: AJZ $>$7 (28%) versus AJZ 10 (13%) versus MJZ $<$10 (62%); $p < .0001$.

Pregnancy resulted in only 5% of the group "combination of AJZ $>$7 and MJZ $>$10", versus other combinations 62 % ($p < 0.0001$).

Conclusions: This study reveals that the finding of adenomyosis on pelvic MRI is a negative factor for IVF. The most specific MRI criteria to predict the outcome of IVF is the combined measure of AJZ and MJZ. Pelvic MRI