

85 The prognostic evaluation in detection of appearance of gestational sac and fetal heart movement following success of in vitro fertilization-embryo transfer. I.Honda, Y.Kobayashi, M.Inoue, H.Sou, A.Fujii, Dept. Obst. and Gynec., Tokai Univ. Sch. Med., Kanagawa.

The time of first observation of gestational sac and fetal heart movement were evaluated by transvaginal ultrasonography in one hundred fifty-eight IVF-ET pregnant patients with two hundred forty-five gestational sacs. Pregnancy outcomes of 245 gestational sacs were as followed : 194(79.2%) ongoing pregnancies, 23(9.4%) blighted ovums, 21(8.6%) intrauterine fetal deaths in the first trimester and 7(2.9%) ectopic pregnancies. In 194 viable pregnancies, gestational sacs were visualized at between 17 days and 24 days after oocyte retrieval. While in intrauterine fetal deaths first appearance of gestational sac was delayed 2 days later and blighted ovums it was 4 days later than viable pregnancies. Fetal heart movements in viable pregnancies were detected at between 26 days and 32 days after oocyte recovery. While in fetal death subjects detection of fetal heart movement was delayed 3 days later than viable pregnancies. Fetal heart rate gradually increased in proportion to gestational age, fetal death subjects had always significantly fewer heart rate than ongoing subjects. It is suggested that delayed implantation might be ended in fetal death.

86 Results of in vitro fertilization-embryo transfer on outpatient bases : comparison of three protocols for time of embryo transfer. Y.Kobayashi, I.Honda, M.Inoue, H.Soh, A.Fujii, Dept. Obst. and Gynec., Tokai Univ., Sch. Med., Kanagawa.

From June '88, in vitro fertilization-embryo transfer (IVF-ET) on outpatient bases were performed on 429 infertile patients with various kinds of etiology in 722 IVF-ET cycles in three protocols for time of ET, at one day ET (pronucleus stage embryo), 2 days ET (2-4 cell stage embryo) or 3 days ET (8-16 cell stage embryo). Two hundreds and four clinical pregnancies on 178 patients were conceived, for overall pregnancy rate of 38.0% per patient or 28.3% per ET. Predicting of ET time, pregnancy rate per ET was 25.0% (106/424) in one day ET, 31.9% (92/288) in 2 days ET or 66.9% (6/9) in 3 days ET. Ongoing pregnancy rate was 50.9% (54/106) in one day ET, 68.5% (63/92) in 2 days ET or 33.3% (2/9) in 3 days ET. Delivery rate per ET was 12.7% (54/424) in one day ET, 21.9% (63/288) in 2 days ET or 22.2% (2/9) in 3 days ET. Each of these three rates in one day ET was statistically lower than that in 2 days ET. While the pregnancy rate in 3 days ET was highest, the delivery rate in 3 days ET was almost same as that in 2 days ET. These results indicate that any stage of embryo at among one day and 3 days ET may be available for outcomes of IVF-ET pregnancies.

87 Spontaneous abortion after In Vitro Fertilization-Embryo Transfer (IVF-ET) and its related factors. T.Kojima, K.Ogawa, H.Siotu, K.Takahasi, K.Sato, Dept. Obst. and Gynec., Toranomon hospital, Tokyo.

IVF-ET is recently accepted as one of alternatives for the infertility treatment. We reviewed 42 pregnancies following IVF-ET in our hospital for the last 3.5 years. Of 42 cases who conceived, spontaneous abortions had occurred in 15 cases (35.7%) after confirming the pregnancies by vaginal ultrasonography, with no ectopic pregnancies. We analyzed what kinds of factor were observed in the spontaneous abortion (group A) compared with the ongoing pregnancy (group B). Causative factors for infertility, age, total amount and days of HMG injection, estradiol(E2) & progesterone(P4) value at the time of HCG injection and on the 13 days after ovum pick-up, number of retrieved egg, number of fertilized egg, semen analysis by computer, penetrak test, hypoosmotic swelling test, number of IVF-ET trials until achieving pregnancy were taken into consideration. Group A consisted of more cases with male infertility and semen analysis was significantly lower semen motility rate ( $P<0.05$ ) than group B. Semen function test also showed same tendency. The mean IVF-ET trials until pregnancies in group A was more than group B ( $P<0.05$ ). It was suggested that poor semen quality might be related with the higher miscarriage rate after assisted conceptions.