

abortion and recurrent abortion can explain the pathological process of early fetal loss.

O-8 **Efficacy of Fluorescence in situ Hybridization (FISH) in Preimplantation Genetic Diagnosis (PGD) of Translocation Carriers**

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Objective: FISH was introduced and shown to an effective method for the diagnosis of structural chromosomal aberrations. This study was performed to evaluate the reliability of PGD with FISH in reciprocal or Robertsonian translocation carriers.

Materials and Methods: Forty-one cycles of PGD for translocation carriers were performed from January to November 2001. Thirt-six cycles of 27 couples were reciprocal translocation carriers. Five cycles of 5 couples were Robertsonian translocation carriers. A total of 841 oocytes was collected, and 597 oocytes were fertilized by ICSI. One blastomere with a distinct nucleus was biopsied in 518 embryos. The appropriate probes of each cycle were hybridized overnight and FISH signals were detected.

Results: The successful biopsies without any complication were accomplished in 99.2% (514/518), and successful diagnosis rate of FISH was 95.7% (492/514). Embryos with normal or balanced FISH signals were replaced in 37 cycles (90.2% of started cycles), and 8 (19.5% per cycle, 28.6% per couple) ongoing pregnancies were achieved. At present, 4 healthy babies were delivered and 4 ongoing conceptions were confirmed their normal or balanced karyotype by amniocentesis.

Conclusions: These results show that the efficacy of FISH in PGD of translocation carriers was 95.7%. The results of FISH confirmed by amniocentesis (100%, 8/8). Therefore FISH can be a reliable method of PGD for translocation carriers. And our facility of the PGD with FISH provides the great possibility of a child with structurally normal or balanced karyotype for the complicated couples.