168 Usefulness of cordocentesis for rapid karyotyping. T.Sumi, T.Iida, T.Narukawa, R.Adachi, S.Okada, K.Suzumori, Y.Yagami, Dept.Obst.and Gynec., Nagoya City Univ.Med.Sch., Aichi,

Recent progress in ultrasonography allows detection of fetal minor anomalies. And some abnormal fetuses are associated with chromosomal aberration. The cytogenetic result is essential for planning fetal therapy and obstetrical management. To evaluate the utility of cordocentesis for rapid karyotyping, the present study was carried out. Fetal blood sampling was performed by cordocentesis in 36 fetuses after ultrasonic diagnosis of fetal anomalities. Rapid karyotype was obtained in 3 days by fetal lymphocyte culture. Chromosomal aberration was detected in 6 fetuses (16.7%). The breakdown was 1 (trisomy 13) in 6 fetuses with abnormalities of central nervous system, 2 (trisomy 13 and 22q+) in 7 fetuses with renal or urinary tract abnormalities , 1 (trisomy 21) in 3 fetuses with cystic hygroma, 1 (trisomy 21) in 11 fetuses with nonimmune hydrops fetalis and 1 (trisomy 18) in 4 fetuses with IUGR. Fetuses with anomaly detected by ultrasonography had various chromosomal aberration at a higher frequency. Compared with the conventional method of amniotic fluid culture , the rapid karyotyping by cordocentesis was more helpful because one could obtain the cytogenetic result faster.

169 Prenatal diagnosis in 2293 amniocenteses. S. Suzumura, S. Tamura, N. Fujita, S. Matanaka, S. Nozawa, Dept. Obst. and Gynec., Keio Univ. Sch. Med., Tokyo.

In the last two decades we have performed prenatal chromosome analyses in 2293 cases. The main indications were: A) advanced maternal age (1395 cases), B) previous child with a chromosome abnormality (365 cases), C) parental chromosome abnormality (48 cases), and D) miscellaneous (485 cases). The number of women in group A increased rapidly until 1986 to 171 cases/year, thereafter it has remained constant. In these 4 groups of women we found an unbalanced abnormal karyotype in 42 fetuses: 21 trisomy, 13 cases; sex chromosomes anomalies, 11 cases; and other autosomal anomalies, 18 cases. In group A, we detected fetuses with a chromosomal aneuploidy in 1.2% of women aged 35 to 39 (951 cases), and in 3.2% of those aged 40 or more (444 cases). In group B (21 trisomy, 301 cases; others, 64 cases), we found an aneuploid karyotype in 2.46% of the fetuses. In group C, 3 fetuses (6.25%) with an unbalanced karyotype and in group D, 5 fetuses (1.0%) with an aneuploid karyotype were found. The incidence of Down's Syndrome increased as the MOM values of AFP in amniotic fluid decreased.