



CHAPTER VIII

DISCUSSION

The purpose of this study was to evaluate the improvement of the prenatal diagnosis for chromosome abnormality in early pregnancy between 12-14 weeks of gestation by using the amnifiltration technique. This technique was proved to be efficient in shortening the culture time but the success rate of the culture was not significant difference between the control and the treatment group which may due to the small sample size. The procedure of amnifiltration was rather more difficult than the standard amniocentesis. In the case with difficult procedure the yield with low cell count in the amniotic fluid specimen was observed and consequently can cause higher rate of culture failure. Selecting the case with demonstrated good pocket of amniotic fluid should be another point to consider. Full bladder at the time of the amniocentesis will make the procedure much easier because the bladder will push the uterus out of the pelvic cavity. Recommendation for amnifiltration in early amniocentesis is to perform while the patient has full bladder.

This study demonstrated that if the setup time is delayed more than 6hrs it will cause significantly prolong the duration of the culture time. The time between the procedure and the culture set up should not be longer than 6 hrs. The ideal time is to set up the culture immediately after the amnifiltration.

No serious complication occurred in this study both treatment and control group. The temporary leaking of the amniotic fluid was higher than the second trimester amniocentesis, possibly due to the space between the amnion and chorion which is larger and will cause more leaking through that space and the fluid will leak through the vagina.

The mean duration of the culture time is about the same as in the second trimester amniocentesis compared to our cytogenetic laboratory. The volume of recirculated amniotic fluid in the treatment group was 35.9cc, which corresponds with the amount of amniotic fluid volume removed in the second trimester amniocentesis. The amniotic fluid volume was removed only 7-8 cc in the amnifiltration technique.

The fetal safety evaluation in this study showed normal growing of the fetus and normal amount of amniotic fluid volume by the ultrasound measurement at 20 weeks of

gestation. The fetal outcome after delivery should be evaluated for confirmation of the safety. In this study almost all of our patients are still in ongoing pregnancy.