THE RISK FACTOR OF FETAL CHROMOSOMAL ABERRATIONS IN THE SOUTH OF VIETNAM

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Objectives:
The aim of this study is to find the risk factors of fetal chromosomal aberrations in order to classify a high risk pregnancy in our prenatal care unit.

Material and methods:
A prospective study was carried out during one year in our clinic. 523 cases of amniocentesis was followed up and evaluated the relation with abnormal result (fetal aneuploidies) and the risk factors such as advanced maternal age (≥ 35 years old), parity, habitation, positive triple test (≥ 1/250), fetal malformation history and abnormal signs in the first and second trimester scanning.

Results:
The incidence of fetal aneuploidy was 3.4% (18/523 [95%CI: 2.1-5.4%]) and the trisomy 21 showed the most common in these chromosomal aberrations (67%). The younger women (< 35 years old), nulliparous, positive triple test and abnormal ultrasonographic findings (included increased nuchal translucency [≥ 2.4mm], absent nasal bone in the first trimester scanning and/or echogenic nodule in ventricular) was identified as the risk factors of fetal aneuploidies (OR was 2.3 [95%CI: 0.8-6.7], 4.0 [95%CI: 1.4-13.2], 3.3 [95%CI: 0.3-33.5] and 9.4 [95%CI: 1.1-79.2], respectively). The abnormal ultrasonographic findings found a relation significantly with abnormal chromosomes (p=0.04).

Conclusion:
Abnormal ultrasonographic findings in the first and second trimester were the important markers for predicting fetal aneuploidy, especially trisomy 21.

Literature reference:
1. Leung TY, et al, First trimester combined screening for trisomy 21 in Hongkong outcome of the first 10,000 cases. Journal of Maternal-Fetal and Neonatal Medicine, 2009, 22:p300-304
2. Theodoropoulos P et al, Evaluation of first-trimester screening by fetal nuchal translucency and maternal age. Prenatal Diagn, 1998, 18(2):p.133-7