Analysis of fetal deaths in relation with increased fetal nuchal translucency thickness in the south of Vietnam

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Objectives: The aim of this study was to investigate the fetal deaths relation with an increased fetal nuchal translucency (NT) thickness in the South of Vietnam.

Methods: A total of 2500 singleton pregnancies were measured fetal NT and performed free β-hCG and PAPP-A routinely in the first trimester, then scanned for fetal structure at the second trimester, next followed to their delivery and examined neonatal status. Amniocentesis was indicated to confirm a fetal karyotype. Anencephaly was counselled a termination of pregnancy (TOP). 5 groups of fetal NT thickness was divided: normal NT (< 2.4 mm), mild increased NT (2.4-3.4 mm), moderate increased NT (3.5-4.4 mm), severe increased 4.5-5.4 mm) and very severe increased NT (> 5.5 mm). We evaluated the fetal deaths (included spontaneous abortion, fetal demise, and TOP due to aneuploidy and/ or structural abnormality) in each group, then look for a relation with increased fetal NT thickness and those fetal adverse outcomes.

Results: Fetal NT thickness at 2.4 mm or more was defined as an increased fetal NT with 65.5% of sensitivity for fetal abnormal detection. 5.3% was the prevalence of increased fetal NT thickness, 2.8% of cases had been indicated an amniocentesis. A total incidence of fetal death was found 1.5%. In group < 2.4 mm, the rate of abnormal karyotype was 0.4% (10/2367), none case of fetal deaths obtained. In group 2.4-3.4 mm, fetal death found 26.4% (32/121) that included 12.4% of abnormal karyotype, 8.3% of abnormal ultrasound scanning, 5.8% of fetal demise, and 0.8% of neonatal defect due to G6PD deficiency. In group 3.5-4.4 mm, 33.3% of fetuses were died (22.2% aneuploidy and 11.1% miscarriage). In group 4.5-5.4 mm, 59% of trisomy 18 was detected and in group > 5.5 mm, 100% of trisomy 21 was diagnosed. When fetal NT thickness increased, the possibility of fetal demise was higher significantly: likelihood ratio augmented from (2.2 (group 2.4-3.4 mm) to 169.5 (group > 5.5 mm) (p < 0.01).

Conclusion: An increased fetal NT thickness was useful finding for prediction of fetal deaths in the prenatal diagnosis and care program in the South of Vietnam.

Keyword: Fetal NT thickness, fetal outcomes, fetal structural abnormality, karyotype.

Central cotyledonary lucencies in the placenta on sonographic examination and obstetric outcome - a prospective observational study

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Purpose: The aim of this study was to compare pregnancy outcome in cases of central cotyledonary lucencies visualized on sonography with and without concurrent maternal disease.

Methods: In this prospective observational study carried out between November 2009 and June 2010 in the Department of Obstetrics and Gynaecology, AIIMS New Delhi, placenta was evaluated sonographically in 50 singleton pregnancies at between 28-40 weeks of gestation. Ultrasound was performed for routine growth parameters and liquor assessment. Study group (with placental lucencies) comprised 32 cases and control group without placental lucencies comprised 18 cases and were followed through the end of pregnancy. Obstetric outcome was compared with that of cases with sonographically normal placental aspects.

Results: The mean age in the study group was 27.8 years compared to the control group of 28.4 years. There were 37.5% primigravida in the study group, 16.6% in the control group. In the study group (n=32), there were 28.13% previous caesarean section, 22.2% Gestational Diabetes mellitus, 22.2% medical complications, 15.6% Pregnancy induced hypertension, 28.13% Intrauterine growth restriction, 3.1% Anaemia, 12.5% Rh negative pregnancies, 3.13% Oligohydramnios. In the control group (n=18), there were 50% previous caesarean section, 3.13% Gestational Diabetes mellitus, 3.13% medical complications, 0% Pregnancy induced hypertension, 0% Intrauterine growth restriction.