

FEASIBILITY OF SCANNING FETAL ANATOMY IN THE FIRST TRIMESTER OF GESTATION

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Objectives:

This study aims to evaluate the feasibility of performing an anatomy scanned for fetal abnormalities at the time of nuchal translucency (NT) measurement in Vietnamese population

Material and methods:

In a prospective study, 2500 singleton pregnancies measured fetal NT and scanned structural anatomy in the first trimester; then checked fetal morphology systematically at 18-24 weeks and followed up to their delivery. According to ultrasonographic abnormalities and amniocentesis, we evaluated the detection rate of ultrasound for aneuploidy in the first and second trimester of gestation.

Results:

The sensitivity and specificity of ultrasound for aneuploidy was 17.2% and 99.7%, respectively. All 13 cases of fetal ultrasonographic anomalies related significantly with an increased NT ($\geq 2.4\text{mm}$) ($p < 0.001$). 30.8% of these abnormalities that included cystic hygroma, omphalocele and holoprosencephaly were detected at 11-13.6 weeks' gestation. In the second trimester scanning, 69.2% of major structural anomalies found and the detection rate of central nervous system malformation, abnormal heart, abdominal wall defect, face anomaly and skeletal deformities were 85.7%, 100%, 66.7%, 50% and 75%, alternatively.

Conclusion:

Scanning of fetal anatomy at the time of NT measuring is useful to detect fetal abnormalities, especially aneuploidy in Vietnamese pregnancies.

Literature references:

1. Souka AP, et al., *Screening for major structural abnormalities at the 11-to14-week ultrasound scan*. Am J Obstet Gynecol, 2006, **194**: p. 393-6.
2. Fionnuala MM, et al., *Ultrasound detection of fetal anomalies in conjunction with first-trimester nuchal translucency screening: A feasibility study*. American journal of obstetrics and gynecology, 2005. **193**(3): p. 1260-1265.