

## Abstract

### Nuchal Translucency and Pregnancy Outcome

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#### **Objectives:**

To study the association of nuchal translucency thickness with adverse pregnancy outcome in an unselected population.

#### **Methods:**

This was a retrospective study done involving 434 patients in a university hospital over period of four years. First trimester ultrasonography were routinely offered for screening of nuchal translucency (NT) at 11 to 13+6 weeks. Morphology scan was performed at 18 to 22 weeks. Pregnancy was followed up till delivery and the information was obtained in all cases by a review of medical records.

#### **Results:**

The mean age of this unselected study population 32.59±5.18 years old and most of the study population were overweight. The median NT was 1.4 mm. Medical illness such as gestational diabetes mellitus, hypertensive disorder, connective tissue disease and heart disease reported in 50% of patients. Using a cut-off value of 3 mm, the prevalence of increased fetal NT was 2.3%. Almost 20% of patients with NT less than 3 mm had adverse outcome and this increased to 40% when NT is more than 3 mm. Incidence of chromosomal abnormality was 75% in NT more than 3 mm and no incidence noted among foetuses with NT less than 3 mm. There was 2.4% of structural defect noted in NT less than 3 mm and this incidence was noted five times higher in group with NT more than 3 mm (12.5%). Prematurity (42.9%) was the commonest adverse outcome in group with NT less than 3 mm and this followed by IUGR-SGA (27.4%), IUD (9.9%), miscarriage (6.5 %) and TOP and ENND (1.1%) respectively.

#### **Conclusion:**

This study suggested that increased NT is associated with adverse pregnancy outcome. NT measurement of more than 3 mm was found to be associated with 75% of increased incidence of chromosomal abnormality, five times higher incidence of structural defect and overall two times increased risk of adverse pregnancy outcome compared to NT less than 3 mm.