20th World Congress in Fetal Medicine

Outcome of pregnancies with nuchal translucency <5th percentile

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Objective

Increased nuchal translucency (NT) is an expression, and so an useful marker, of chromosomal abnormalities, fetal malformations and genetic syndromes. The association between fetal chromosomal abnormality and increased NT during the first trimester of pregnancy is well-established. The appearance of a thickened NT during 11-14 weeks of gestation is also strongly associated with fetal structural defects, genetic syndromes, and poor perinatal outcome even in a chromosomally normal fetus. The nuchal translucency measurement is more than just a screening for Down syndrome. A very small nuchal translucency measurement – less than 2.5 mm – places the pregnancy in a low-risk group for problems, such as fetal heart abnormalities. To study the pregnancies and neonatal outcomes in pregnancies with NT <5th percentile in first trimester.

Methods

This is a retrospective review from a single tertiary fetal care centre in south Gujarat from jan 2021 to Dec 2022. All singleton pregnancies with NT below 5th%tile at 11 – 13wks6days gestation were included in the study. The NT measurements were taken by a single FMF certified operator as per FMF guidelines. All data was stored on the FMF certified Astraia software. Fetuses with NT <5th percentile were followed till delivery and early neonatal period. The fetuses with NT <5th percentile were analysed for presence of any structural or chromosomal abnormality, development of FGR, preterm delivery, low birth weight, mode of delivery, CS for fetal distress, NICU admission and delivery of a normal alive baby.

Results

A total of 20 pregnancies fulfilled the criteria and were included in the study. All these pregnancies had NT <5th percentile at the time of examination. 5 (25%)pregnancies were terminated for some abnormal finding present at the time of NT scan. One pt each had Ebstein anomaly, unossified NB, severe early FGR which was triploidy on invasive testing, one fetus was terminated as it was found sicke cell disease on CVS and the 5th fetus had megacystis. The remaining 14 (%) pregnancies continued till term. One pt delivered preterm at 32 wks. 5 pts delivered vaginally and 10 pts delivered by CS. All the 15 pts had live birth. Birth wt of 7 babies was between 2.5 - 3kg and 6 babies was between below 3.1 to 3.5kg, one baby was more than 3.5kg at birth and one preterm baby was 1.9kg. There was no neonatal death or NICU admission.

Conclusion

NT <5th percentile is not associated with poor outcome unlike other fetal parameters below 5th%tile which constitute an abnormality. Fetal AC, EFW below <5th percentile is FGR, fetal HC and FL <5th percentile requires close monitoring for microcephaly and skeletal dysplasia, cerebroplacentalratio below <5th percentile represents cerebral redistribution etc. NT <5th percentile has a favourable outcome if there are no associated structural or chromosomal abnormalities.