A decade of NT based first trimester screening and the subsequent pregnancy outcomes

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Objective

To analyze our results of NT based first trimester screening and the subsequent pregnancy outcomes within the last 10 years.

Methods

This is a retrospective evaluation of the clinical management and fetal outcome of pregnancies, who underwent first trimester screening at 11+0 -13+6 weeks including nuchal translucency (NT) measurement between 2004 and 2014. Increased NT was defined by the NT value above the 95th centile. Main outcome parameters were: abnormal karyotype, abortion, termination of the pregnancy, fetal demise, preterm delivery, IUGR, gestational diabetes, large for gestational age babies at delivery and term delivery.

Results

A total of 4501 singleton pregnancies including referred patients (3%) were screened in the first trimester. 276 of them were noted as screen positive and were counseled to continue with combined test or karyotyping to rule out any fetal chromosomal abnormality. There was 134 follow up losts. Of the remaining 142 cases, 106 pregnancies (75%) accepted to perform cordocentesis or amniocentesis. 32% (n=35/142) of them had chromosomal abnormality. In 20/35 cases trisomy 21 was diagnosed, 6/35 had trisomy 18 and the rest had other chromosomal aberrations. 11% of the patients refused to have karyotyping, from those 4% terminated the pregnancy without karyotyping. 5% of the screen positive cases without karyotype are still under follow up. The fetal loss ratio was 83 % in chromosomal abnormality and 14% in normal karyotype group. Interestingly, approximately 10% of the follow up cases with normal karyotype presented with LGA babies or GDM.

Conclusion

First trimester screening based on NT measurement is effective and is useful early alert of obstetricians not only for possible genetic syndrome but also for some pregnancy complications.