

triple test had 100% sensitivity and 92% specificity. For other fetal abnormalities, sensitivity and specificity of first trimester screening were 28.5% and 96.6% respectively. Sensitivity and specificity of the triple test were 88% and 94.8% for detecting these other fetal abnormalities.

Conclusions: The increased sensitivity of the triple test for picking up the other fetal abnormalities was thought to be the result of AFP measurement. It seems wise to screen for Down's syndrome with the first trimester screening programme and then screen for other fetal abnormalities during the second trimester by measuring maternal serum AFP level only.

P025

Correlation between nuchal translucency and ductus venosus flow at 13–14 weeks scan

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Objective: Fetal ductus venosus flow at 13–14 weeks' gestation is one of the best tests to identify fetuses with cardiac abnormality. Enlarged fetal nuchal translucency/NT/ is a well established ultrasonographic marker for aneuploidy screening. Our aim is to assess the incidence of reverse flow during atrial contraction at ductus venosus in fetuses with normal NT and correlation with cardiac abnormalities.

Material and methods: At 13–14 weeks' gestation were obtained ductus venosus Doppler flow velocity, during measurement of NT in 344 fetuses.

Results: The incidence of reverse flow was 13.5% of fetuses with increased NT/3 mm/ and 4.8% with normal NT. Among the fetuses NT was increased in 13/ 4.1%. There was no cardiac malformation observed in fetuses with normal NT, and cardiac abnormality was found with increased NT.

Conclusion: Our results suggest that the reversed flow in fetuses with normal NT is not associated with cardiac malformations.

P026

Association of increased nuchal translucency and ductus venosus assessment between 11 to 14 weeks of gestation

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Introduction: The pathophysiological mechanisms of an enlarged nuchal translucency (NT) is not well known, but a temporary cardiac dysfunction at early gestation has been suggested. Changes in ductus venosus (DV) blood flow velocities have been reported in some chromosomal abnormal fetuses with enlarged NT. The aim of this study was to evaluate the role of DV blood flow assessment at 11–14 weeks of gestation in predicting adverse perinatal outcome.

Methods: Doppler flow measurements of the ductus venosus were prospectively assessed in 196 consecutive fetuses at the time of NT scan from June 2000 to May 2002. Pulsatility Vein index (IPV) for the DV was calculated.

Results: The perinatal outcome was available in 144 (75%) pregnancies. A chromosomal abnormality was found in 2 cases (1.4%) and there was also a fetus with Apert syndrome. IPV was above the 95th centile (1.37) in 5 cases (3.4%), which were most of them (4/5) associated with increased NT and adverse perinatal outcome. There was also seen a positive correlation between NT and DV ($r = 0.71$; $p < 0.001$).

Conclusion: Our results suggest that the evaluation of the IPV of DV at 11–14 weeks gestation is significantly related with increased NT and for such association is also a useful tool for screening of chromosomal abnormalities and a marker of abnormal perinatal outcome within the group with normal karyotype.

P027

Application of ductus venosus Doppler velocimetry for the detection of Down syndrome

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Objective: Investigate the application of ductus venosus Doppler velocimetry in normal fetuses and as a screening tool for aneuploidy between 10–14 weeks gestation by developing a new estimate of the Down syndrome risk.

Patients and methods: Ductus venosus blood flow and nuchal translucency thickness were prospectively measured in 606 fetuses, of which 157 were tested cytogenetically and 449 examined postnatally. For statistical analysis the T student test, analysis of variance and linear regression were predominantly used. The sensitivity, specificity, positive and negative predictive values, false-positive probability and likelihood ratios were calculated.

Results: Thirty-seven (37) aneuploid fetuses were detected. Of these 37, ductus venosus blood flow during atrial contraction was either absent or reversed in 33 cases (sensitivity 89.2%). In contrast, only 8 of 569 (1.4%) euploid fetuses had abnormal ductus venosus Doppler profiles. There were 23 trisomy 21 fetuses, and 21 had abnormal ductus venosus flow during atrial contraction (detection rate 95.2%; specificity 98.6%; positive and negative predictive values 72.4% and 99.6%, respectively; and positive and negative likelihood ratios 64.9 and 0.1, respectively).

Conclusion: By assigning a base risk for trisomy 21 using the "Fetal Medicine Foundation" program for nuchal translucency, and then multiplying it by a likelihood rate of ductus venosus Doppler velocimetry, using the values of 65 for positive likelihood rate and 0.1 for negative likelihood rate. We speculate the possibility of new criterion to calculate the risk of Down Syndrome using the risk of the "Fetal Medicine Foundation" program as the background risk multiplied by the likelihood ratio of the ductus venosus test (new multiplying factor).

P028

Nuchal Translucency – A multiracial experience in Singapore General Hospital

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Singapore General Hospital has been adopting the use of NT screening since 1996. To date, it has become an accepted antenatal screening test amongst our patients. One question remained whether the NT was the same in our population vs the UK or caucasian populations.

A review of the past years under the auspices of the FMF UK has proven that NT is no different in our mixed population.

P029

Nuchal translucency screening program result in a Chilean center

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Objectives: To describe our experience on the nuchal translucency screening program performed in Clinica Las Condes.

Methods: Ultrasound scan was performed in 264 consecutive pregnant women, with 45 to 84 mm crown rump length fetuses, between August 2002 and April 2003. There were 111 women (42.4%) 35 years old or more. Nuchal translucency was performed