

Obstetrics and Gynecology. A pre tested structured questionnaire was implemented to collect information of different variables of interest. Statistical Program for the social sciences (SPSS) was used for the data management.

Results: Over 93.5% of the women in our population thought that ultrasound is an important investigation. They believe that it should be performed at least twice during pregnancy, although they are not sure of the timing or the exact indication of this test. 97% of women considered ultrasound to be safe. However, only 20% of women had any knowledge about Down's syndrome or its screening.

Conclusion: Pregnant women in our set-up are aware of importance of ultrasound examination during pregnancy. Based on our results we feel that there is a need to improve public awareness of problems like Down's syndrome. Multiple strategies can be adopted to improve this knowledge.

P065

Prenatal diagnosis of echogenic cardiac foci: correlation with chromosomal abnormalities

T. R. M. Gonçalves*, A. F. Moron*, C. G. V. Murta*, M. M. Zamith† and E. R. Amaro†

*Federal University of São Paulo – UNIFESP, Brazil and
†Maternidade Santa Joana, Brazil

Objective: The purpose of this study was to evaluate the incidence of echogenic foci in the fetal heart on second trimester ultrasound scan and its association with chromosomal abnormalities.

Study design: A total of 23 360 fetuses scanned by morphologic ultrasound between 16 and 40 week's gestation were reviewed at one referral center for an echogenic cardiac focus during an apical four-chamber view of the heart. Presence or absence of chromosomal abnormalities was evaluated by fetal karyotyping or phenotype in the study group.

Results: Among 23 360 fetuses scanned, echogenic intracardiac foci were observed in 373 cases (prevalence of 1.59%). In three hundred fifty four fetuses the foci were single (94.90%), 18 were double (4.83%) and one was triple (0.27%). The most common finding was isolated echogenic foci in the left ventricle (94.10%). Fourteen (3.75%) of these 373 fetuses had chromosomal abnormalities, 9 fetuses had trisomy 21 (2.42%), 2 fetuses had trisomy 13 (0.53%), 2 fetuses had trisomy 18 (0.53%) and one fetus had triploidy (0.27%). No other ultrasound findings, except echogenic cardiac foci were found in five of the fetuses that had trisomy 21 (1.34%), and two of these fetuses do not have other risk factor for chromosomal abnormalities, establishing a predictive positive value of 0.54% for an isolated echogenic cardiac foci to predict trisomy 21.

Conclusion: In our study the association between isolated intracardiac echogenic foci and trisomy 21 was similar to the association between maternal age around 35 years-old and trisomy 21. Therefore, women carrying fetuses with echogenic cardiac foci should be informed of this association especially if she is older than 35 years-old.

P066

Prenatal sonographic measurement of the fetal iliac angle in trisomy 21, 18 and 13

Z. Belics, A. Beke, T. Fekete, L. Csabay, I. Szabó, Z. Papp and K. Jenei

Semmelweis University I, Budapest, Hungary

The purpose of this study was to present our results and experiences with sonographic measurement of the fetal iliac angle during the second trimester of pregnancy.

The objective of the present study was to determine whether iliac wing angle measurement in second trimester fetuses is a useful sonographic marker for the detection of trisomy 21, 18 and 13.

Methods: At the Semmelweis University, I. Department of Obstetrics and Gynecology, Budapest, between September 1998 and September

2001, 406 fetal iliac angle measurements were performed in women during the second trimester of their pregnancies. The iliac angle measurements in fetuses with trisomy 21 (n = 25), trisomy 18 (n = 10) and trisomy 13 (n = 5) were compared with iliac angle measurement in fetuses with normal karyotypes (n = 333).

Results: The mean iliac wing angle in the aneuploid fetuses was as follows: 92.67° in trisomy 21, 79.35° in trisomy 18 and 74.00° in trisomy 13. The mean iliac wing angle in the healthy fetuses was 70.09°.

Conclusion: The proven larger iliac wing angle in neonates with Down-syndrome can be demonstrated sonographically during the pregnancy, especially during the second trimester, and may be useful sonographical marker in prenatal screening of trisomy 21. The sonographic measurement of the fetal iliac angle can not be used as a marker for trisomy 18 and 13. We have shown that fetuses with trisomy 18 and 13, on average, have iliac angles only a few degrees larger than healthy fetuses.

P067

Examination of fetal nasal bone in the mid-second trimester in the Chinese population – Preliminary results

K. Y. Leung*, M. Chen†, C. P. Lee*, M. H. Y. Tang† and P. W. Hui*

*The University of Hong Kong, Queen Mary Hospital, Hong Kong Sar and †The University of Hong Kong, Tsan Yuk Hospital, Hong Kong Sar

Objective: Hypoplastic nasal bone of trisomy 21 and other aneuploidies could be detected by ultrasound examination. The presence and size of the nasal bone was an important new marker in the detection of DS in the second trimester as well as in the first trimester. There was no reference range for the fetal nasal bone length (NBL) in Chinese population. In this study, we investigated the reproducibility of fetal NBL measurement in the mid-second trimester and generated the reference range of fetal NBL in the mid-second trimester in the Chinese population.

Methods: From June 2002 to February 2003, 198 Chinese women with Chinese partners were recruited. Ultrasound measurements were performed on a strictly mid-sagittal plane in normal singleton fetuses at 15–22 weeks' gestation.

Results: The median length of the nasal bones increased from 3.5 mm at 15 weeks to 6.7 mm at 22 weeks' gestation. There was a linear relationship between the length of nasal bone and femur length. Inter-observer variation of measurement was 5.18%; Intra-observer variations were between 2.4% to 4.0%.

Conclusions: It was demonstrated that measurement of nasal bone length was feasible and reproducible in the second trimester. It seemed the nasal bone length in Chinese population was lower than that of Caucasian and Africa-Americans. Further study with a larger sample size was required to confirm our findings.

P068

Umbilical venous volume flow and fetal behavioural states in the normally developing fetus

S. M. E. Boito, N. T. C. Ursem, P. C. Stuijk, T. Stijnen and J. W. Wladimiroff

Erasmus MC, Netherlands

Objectives: To determine the relationship between umbilical venous (UV) volume flow and fetal behavioural states 1F (quite sleep) and 2F (active sleep) in normal pregnancies at 36–40 weeks of gestation.

Method: Fetal behavioural states were established in 17 normal pregnancies by means of combined assessment of fetal heart rate (FHR), fetal eye and body movements. UV vessel area (mm²), as obtained by tracing the inner vessel area, and UV time-averaged flow velocity (mm/s Doppler) were multiplied to calculate UV volume flow (ml/min), including flow/kg fetus. Pulsatility index in the Umbilical