

ated traces were reassuring and in 3 cases inter-vention was needed: 2 women were referred to the antenatal clinic and were discharged after further evaluation (biophysical profile). 1 woman underwent urgent caesarean section due to placental abruption. All patients indicated the simplicity of use and the high level of comfort they felt.

CONCLUSIONS:

Self-nonstress home testing of pregnant women at high risk seems to be a reliable and accurate method of antepartum fetal heart rate testing which can be performed comfortably in the home setting and may prevent unnecessary hospital visits and by that may possible reduce the expense of in- or outpatient care. A further large-scale study is required to evaluate the cost effectiveness of this management.

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HOME CARE IN PERINATAL NURSING PRACTICE

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Maternal and child health nurses practice at all levels of care and in a variety of settings from home, schools and outpatient clinics to the most sophisticated intensive care units.

Perinatal Nursing, focuses on the care of childbearing women and their families during pregnancy, childbirth and the first 4 weeks after birth. There have been significant changes in the practice of perinatal nursing over the past 25 years. Many of the changes have been positive for childbearing women, but there have been some negative trends in the care of women during labor and birth.

Improving the home care services in perinatal nursing is one of the positive changes. Home care services in perinatal nursing provide services to obstetrical patients and their newborns in their home.

Home visits are designed to assist with physical restoration, psychosocial adaptation and assisting the new mother and her family in adjusting to their new roles and responsibilities.

As the number of mothers, infants and children cared for in the home increased the number of agencies also increased to meet this need.

Thus, nursing care in the home is coming full circle.

L139 (Precongress Course)

FIRST TRIMESTER PREGNANCY RISK ASSESSMENT OF CHROMOSOMAL ABNORMALITIES

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It has become apparent from the results of several preliminary studies that screening for chromosomal abnormalities in the first trimester is possible but that the parameters used must be different from those in the second trimester.

The most promising parameters in the first trimester appear to be pregnancy associated plasma protein A (PAPP-A) and free β -hCG as serum biochemical agents. Using PAPP-A alone, 60 % of Down syndrome cases would be identified, for a false positive rate of 5 %. Using free β -hCG, instead of total hCG, in serum improves, 8 %-10 %, the detection rate of chromosomal abnormalities.

As a companion to the use of maternal serum analytes for predicting risk for chromosomal abnormalities, there are a characteristic set of ultrasound detectable anomalies that have been periodically found, which should heighten the suspicion when they are seen for the major aneuploidy conditions such as trisomies 21,18 and 13. Enlarged nuchal membrane (or translucency) in the early first trimester weeks and may be important for the aneuploidy conditions.

Cerebral ventriculomegaly, holoprosencephaly, choroid plexus cysts, cranial posterior fossa cysts, nuchal cystic hygroma, nuchal edema, heart defects, hyperecogenic bowel, small for gestational ages are the ultrasonographic findings in the late first trimester weeks. Although the odds of an aneuploid condition may be very high, none of the findings on ultrasound are alone pathognomonic of any particular aneuploid condition.

A number of studies have looked at parameter as PAPP-A, free β -hCG, nicked β , urinary gonadotropin protein, SP 1, dimeric inhibin and ultrasound. This has resulted in a state of condition about the most likely best combination of parameters. By specifying the demographic of the patient's age, ethnic background, maternal age a particular cocktail of parameters may be run

And finally, Chorion Villus Sampling, as a known invasive technic, may be used for the detection of chromosomal abnormalities in high risk groups isolated by biochemical analytes and ultrasound examination.

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SONOGRAPHIC SCREENING FOR FETAL ANEUPLOIDIES

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First-trimester screening of fetal chromosomal abnormalities by chorionic villus sampling (CVS) was introduced at Szeged in 1982. The indication of the procedure was mainly the advanced maternal age (≥ 35 years) (85%). However, only a small proportion of children (7 % in Hungary, 17% in Finland, 12.9 % in USA) were born to women age 35 years or older (Ventura, 2000). Following the maternal age indication as a guideline to screen aneuploidies, we were able to identify only a quarter of Down syndrome pregnancies, even if all women older than 35 years requested invasive procedures (CVS, amniocentesis). Consequently, advanced maternal age was not too good selection criterion for efficient prenatal screening of fetal chromosomal (and other) abnormalities due to the well-known controversy, that younger women have the majority of pregnancies, and younger women give birth to the majority of children with Down syndrome.

This controversy represented a great need for offering "some prenatal screening/diagnostic measures" to the younger (<35 yrs) pregnant population and we decided to develop a method for "in utero finding" defected fetuses irrespective of maternal age. We kept an eye on two criteria: the method should be un-risky and should effectively select pregnancies with fetuses of normal and abnormal karyotype.

The idea came from practice, namely: if a pediatrician could suspect Down syndrome by looking at the affected neonate on the base of trisomic features caused by "extra" chromosome, a sonographer should do the same by looking at the first trimester embryo. Further speculation was that the "extra" chromosomal material express more pronounced features in the early pregnancy. So we hypothesized that trisomic features predictive for trisomy 21 could be ultrasonically recognized as early as the first trimester.

The development of high-resolution ultrasound technique in the mid-80ths gave an outstanding opportunity to approach the intrauterine first-trimester embryo for detailed examination (sonoembryology). Therefore, from 1986 we examined each pregnancy with trisomy 21 fetuses, for finding some sonographic "attitude" that can differentiate aneuploid fetuses from ones with normal karyotype. Reexamining the trisomic fetuses with ultrasound an increased fluid accumulation in the fetal occipital and neck region had been found irrespective of the maternal age in a significant proportion of the fetuses with abnormal karyotype. The increased nuchal edema, which we called first-trimester simple hygroma (FITSH), enlightened the possibility of a prospective screening in the general population .

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INCREASED NT WITH NORMAL KARYOTYPE

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Introduction: Increased nuchal translucency marks not only the pregnancies complicated with chromosomal anomalies, but may also be found in fetuses with normal karyotypes. These pregnancies with increased NT and euploid karyotype may apparently be normal or candidate for certain structural or single gene defects.

Nuchal edema (NT) may progress or undergo spontaneous resolution during the late first and early second trimester both in euploid and aneuploid pregnancies. According to recent sonographic observati-