

lage during gestation is indicated but the vaginal approach is impossible, why not accomplish constriction from above?" All agree, however, that whatever approach is used, the operation is better done during pregnancy.

In 1977 we introduced a modified technique reporting our first 10 cases with fetal salvage of 87.9% in otherwise hopeless cases (Mahran, 1978). In 1991 Novy published a review of 25 years experience of published cases (111 cases).

This study includes 250 cases our experience until the end of the year 2001 with an adjusted fetal salvage of 90.7 %.

L43

PRENATAL DIAGNOSIS OF ANEUPLOIDY IN THE FIRST TRIMESTER USING ULTRASOUND AND MATERNAL SERUM BIOCHEMISTRY

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Screening for trisomy 21, often in conjunction with screening for neural tube defects, by the measurement of second trimester maternal serum biochemical markers has become an established part of obstetric practice in many countries.

Although trisomy 21 screening protocols vary from centre to centre the average detection rate in prospective studies has been 64% (range 48-75%) for a false positive rate of about 5%. For the other major chromosomal anomalies, only algorithms for trisomy 18 have been successfully implemented in routine practice.

During the last decade, extensive research has demonstrated that effective screening for chromosomal abnormalities can be achieved by maternal serum free b-hCG and pregnancy associated plasma protein-A (PAPP-A) and the ultrasonographic measurement of fetal nuchal translucency (NT) thickness. In a multicentre study involving about 100,000 pregnancies screening by fetal NT, with measurements performed in a standardised way (defined by the Fetal Medicine Foundation; www.fetalmedicine.com) by suitably trained sonographers, the detection rate for trisomy 21 was 73% for a 5% screen positive rate.

Subsequently, it was estimated that a combination of fetal NT with maternal serum free b-hCG and PAPP-A would increase the detection rate for trisomy 21 to about 90% and also allow the detection of 90% of other chromosomal anomalies, including trisomy 13, trisomy 18, turner's syndrome and triploidy.

The advent of rapid immunoassays, suitable for point-of-care testing, has enabled the development of a multidisciplinary one-stop clinic for assessment of risk for fetal anomalies (OSCAR). Within a one hour visit, the patient can receive pre-test counseling, blood collection and biochemical testing, ultrasound examination and post-test counseling of a combined risk estimate. The first year of prospective intervention screening using this approach has been reported.

In this paper I will summarise results from three years of screening for chromosomal anomalies in our routine NHS OSCAR clinic in which we have screen approximately 12,000 women. The uptake of first trimester screening was 97.5% and the uptake of invasive testing in the increased risk group was 77%. The rate of detection of trisomy 21 was 92% (23 of 25), of trisomy 13 or 18 was 100% (all 15) and of all aneuploides was 96% (49 of 51). The false positive rate was 5.2%. I will also report on the outcome of screening 15,030 pregnancies in a private Fetal Medicine Centre, in which 91.5% (75 of 82) cases of trisomy 21 were identified along with 88.5% (54 of 61) of pregnancies with other chromosomal anomalies. I will also outline results from 3 years of screening in our private self referral OSCAR centre

I will conclude with a discussion of new research initiatives which may enhance the OSCAR process and lead to even higher detection rates (95%) at a much lower false positive rate (2%) for trisomy 21.

L45**IUGR: DEFINITION: LUBCHENCO OR WHAT ?**

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The fetal weight below the 10th percentile for gestational age is been accepted as IUGR generally. But there is no international consensus about the definition. Lubchenco and co-workers had been defined the IUGR status in 1963 and published the details from Denver. Lubchenco and other authors have developed or changed the definition by their own examinations in consecutive years. The statements of; Fetal weight below the 3th percentile, below 5th or below 15th percentile, fetal weight below two standart deviations for normal gestational age, head circumference / abdominal circumference ≥ 2 standart deviations, ponderal index (birth weight – gr / heigt – cm³) below 10th percentile for gestational age, fetal abdominal circumference \geq two standart deviations for gestational age, are the different definitions of IUGR. Small for gestational age (SGA) is a different terminology for that situation which has been used by Lubchenco and Battaglia in 1967 for the first time.

Lubchenco's results from examination on white infants in 1963 has been used for over 30 years as standart datas in USA. Brenner and colleagues used white and black infants delivered in Cleveland and North Carolina in 1976 and Williams used live births in four ethnic groups in California to examine fetal growth curves and found that fetal growth may vary in different ethnic and religious groups from each other. Ott used postnatal assesment of infants born in St Louis in different national groups and found that each of these growth curves were different from each other in different populations. For that reason they were not considered a certain growth curve necessarily representative of the entire population. In USA the fetal growth datas derived from Alexander's nationwide basis examination in 1996 and in Canada Arbuckle's nationwide basis examination in 1993 are being used in these countries.

L46**IUGR- DETECTION AND MANAGEMENT**

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Intrauterine growth restriction refers to condition in which a fetus is unable to grow to its genetically determined potential size to a degree that may effect the health of the fetus. It is considered that fetus is growth restricted if presents weight below two standard deviations of the expected weight for its gestational age or below the tenth percentile of the weight curve. It is a syndrome that corresponds to different, but interrelated causes. IUGR may be considered as the consequence of a disease process within three elements that sustain and regulate fetal growth - the maternal component, the placenta, or the fetus.

IUGR remains a challenging problem for obstetricians. Identifying this group of fetuses is important in order to have the opportunity to intervene. No single measurement or assessment helps to diagnose or exclude possible IUGR. Therefore, systematic approach, complex strategy and assessment are necessary. To reduce perinatal morbidity and mortality it is necessary to do serial ultrasound scans and investigate fetal well-being. If fetal hypoxia occurs, it should be detected as early as possible. This can be done by Doppler measurements of fetal and uteroplacental blood flow.

Estimation of overall fetal growth, individual body parameters, amniotic fluid volume, and Doppler studies are useful in order to reduce perinatal and maternal morbidity and mortality.