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DOES ROUTINE DOPPLER IMPROVE PERINATAL OUTCOME

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Today it has been well documented that of an obstetric patient receives proper antenatal care the perinatal outcome improves by almost 50%. It has been now shown that if we can noninvasively asses fetal and maternal vascular dynamics in uterus we will be able to predict and treat many problems and further reduce the perinatal mortality.

A literatine review of twenty randomised controlled trials of antenatal Doppler was done and the Meta analysis has shown a significant reduction in the number of antenatal admissas, induction of labour, caesarean sectors, perinatal mortality & intrapartum distress we at our centre have revierved over 1000 cases of Routine antenatal doppler at 24-30 weeks gestation and have come to a conclusion that it is mandatory for all high risk, IUGR, preclampsia cases to have a doppler analysis. We have also concluded that a routine doppler offered at least once in pregnancy will drastically improve perinatal mortality in redeveloping countries.

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FETAL ORIGINS OF ADULT DISEASE

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Based on epidemiological data from the beginning of the 20th century, David Barker and colleagues have worked to establish a link between intrauterine events and the later development of cardiovascular and related disorders. Their collected observations have become known as the 'Barker Hypothesis' and constitute the basis of 'Programming' - a concept whereby a stimulus or an insult at critical periods of development will determine lifelong effects upon organ structure and/or function.

In order to support this thesis they have elaborated an ingenious mechanism of 'fetal under-nutrition' operating at different stages in pregnancy with consequent differing effects upon body proportions at birth, placental ratios and, eventually, disease patterns later in life. Depending upon the type and timing of fetal nutritional deprivation, intrauterine growth and development would be affected leading to altered ponderal indexes (weight/length3) head circumference, placental size, height and weight at one year of age, differently for boys and girls and, subsequently, hypertension, coronary disease, stroke and insulin-resistant status, all adapted to fit the circumstances. Not surprisingly, such intricate mechanisms and explanations have met with considerable criticisms and controversy remains as to whether it is the intrauterine millieu or postnatal factors 'imprinting' on the genetic background which have a greater influence upon events later on in life.

Nevertheless, in recent years from animal experiments it has been repeatedly shown that by modifying intrauterine conditions the offspring will be differently affected and, quite interestingly, these changes will be further transferred into future generations. In addition, diabetes in pregnancy serves as the ideal model to illustrate how an adverse intrauterine environment will condition fetal and neonatal morbidity and how fetal determinants will impose upon conditions developing from childhood to later in life. Of greater importance is the fact that tight metabolic control will avoid, or greatly reduce the whole spectrum of the diabetic embryofetopathy including the later appearance of adult type 1 and 2 diabetes and their related morbidities.