

Intra-uterine Growth Retardation. (I.U.G.R.)

The small baby is the major challenge of modern obstetrics. Not only is low birth weight the most important factor associated with perinatal mortality but there are dangers of short and long-term mental and physical handicap in survivors.

The major problem with I.U.G.R is the absence of a truly satisfactory method of classification and the difficulty of ante-natal recognition of the growth retarded baby.

An attempt has been made to study the epidemiology and aetiology of the growth retarded baby. The diagnosis of growth retardation by biochemical parameters can be applied as screening tests or as control measures to guide the management. Particular substances whose measurements may be helpful are considered in terms of the steroids or proteins produced by the feto-placental unit. The oestrogen, notably oestriol, hold the pride of place among the steroids. Dynamic tests of steroid synthesis are also considered. The chief placental proteins of value are chorionic gonadotrophin, Placental lactogen and Schwangerschafts protein. It is recommended to screen with assays of placental lactogen and to follow those with values below the normal limits with serial oestriol assays.

Further, ultrasound has been developed in the last twenty years to become the major instrument of diagnosis of I.U.G.R. The basic measurement techniques of B.P.D. and fetal trunk measurements along with weight prediction formulas could be utilised for investigating fetal growth and well-being. An adverse fetal environment preceding measurable I.U.G.R can possibly be reflected in a decrease of intra-uterine volume and amniotic fluid and changes of fetal well-being could be investigated by means of changes in volume parameters, fetal activity or fetal blood flow. The next step towards improved ultrasonic evaluation of I.U.G.R fetuses are likely to be in this direction, while increased I.U.G.R detection will mainly result from better screening techniques.

The obstetric management of the growth retarded baby is carefully reviewed. Identification and modification of potential risk factors, early diagnosis, intensive prenatal surveillance and appropriate, timely intervention is necessary for successful management of the pregnancy complicated by I.U.G.R.

The problems faced by the Neonatologists about the care of the growth retarded baby and the neurodevelopmental handicap are evaluated.

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