

## Low socioeconomic status related to Intrauterine Growth Retardation (IUGR)

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**ABSTRACT-** The Socioeconomic status of 100 mothers with Intrauterine Growth Retardation (IUGR) were compared to 100 mothers who had uncomplicated pregnancies. This study demonstrated that Low Socioeconomic status is associated with IUGR babies. The findings of this study suggesting that better socioeconomic conditions, improved nutritional status are likely to play an important role in reducing IUGR.

**KEYWORDS-**IUGR, Socioeconomic status, nutrition, pregnancies

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### I. INTRODUCTION

Intrauterine growth restriction (IUGR) is the failure to achieve the genetically predetermined growth potential and may be caused by maternal, fetal, placental, and external factors. IUGR is associated not only with a marked increased risk in perinatal mortality and morbidity but also with long-term outcome risks.

Intrauterine growth retardation (IUGR) is an important clinical problem associated with increased perinatal morbidity (Brodsky et al., 2004)<sup>1</sup> higher incidence of neurodevelopmental impairment (Blair E et al., 1990)<sup>2</sup> and increased risk of adult disease, such as diabetes and cardiovascular disease(Barker DJP et al)<sup>3</sup>. In India, 30% of the babies born at term are small for dates. Under nutrition and toxemia of pregnancy are considered to be important maternal causes for this (Park K 19<sup>th</sup>ed.)<sup>4</sup>.

### II. MATERIAL AND METHODS

The study in normal and IUGR cases was carried out at R.N.T.Medical College&Hospital,Udaipur, from 200 women admitted to the labour rooms of the hospital (either directly or through the antenatal wards).All the cases were within the age group of 18-40 years, of average height and weight and includes both primigravida and multigravida.

GROUP 1 CONTROL- NORMAL PREGNANCY 100 patients included in this group,normal Hb and urine analysis, not associated with any disease.

GROUP 2 RESEARCH-IUGR CASES 100 cases of IUGR were included.  
Then a performa is made about socioeconomic status and Occurrence of IUGR

### III. OBSERVATION

TABLE NO-I

CONTROL GROUP

STATUS	NO.OF PATIENTS	%
Upper	10	10
Upper Middle	31	31
Lower Middle	23	23
Lower	36	36

TABLE NO-II

RESEARCH GROUP (IUGR)

STATUS	NO.OF PATIENTS	%
Upper	1	1
Upper Middle	36	36
Lower Middle	17	17
Lower	45	45

#### IV. DISCUSSION

**Table: Statistical comparison of socioeconomic status in control and research group.**

Researcher	Place	Number of cases	Result
Nancy Hendrix et al(2008) <sup>5</sup>	Philadelphia	300	Significant*
Low JA et al(1982) <sup>6</sup>	US	164	Significant*
Neel NR(1991) <sup>7</sup>	Guatemala	306	Significant*
S Muthayya et al(2006) <sup>8</sup>	Bangalore	377	Significant*
Present study	India-Udaipur	200	Significant*

\*Significant  $p < 0.01$

The present study showed significant positive correlation between IUGR and Low socioeconomic status. The study is found consistent with the study of S Muthayya<sup>8</sup>, Low JA<sup>6</sup>. Neel NR<sup>7</sup> found that socioeconomic status had a significant positive effect on birth weight

Kramer MS. (1998)<sup>9</sup> found that In countries with high prevalences of maternal undernutrition, it is more prevalent among those from unfavorable socioeconomic backgrounds.

Similar to our study Nancy Hendrix et al also found significant value of IUGR in Low socioeconomic group said that Placental insufficiency, in some form or fashion, is associated with the majority of cases of intrauterine growth restriction (IUGR). There are numerous causes of IUGR which are not caused primarily by placental insufficiency, but indirectly lead to it. The causes of IUGR can be subdivided into fetal and maternal etiologies. The fetal etiologies consist of genetic diseases, congenital malformations, infections, multiple gestations, and placental/cord abnormalities. The maternal etiologies are categorized as follows: (1) decreased uteroplacental blood flow, (2) reduced blood volume, (3) decreased oxygen carrying capacity, (4) nutrition status, (5) teratogens, and (6) miscellaneous causes such as short interpregnancy intervals, race, maternal age, and low socioeconomic status

S Muthayya et al(2006)<sup>8</sup> demonstrates associations between educational status with IUGR., suggesting that better socioeconomic conditions, improved nutritional status are likely to play an important role in reducing IUGR. In our study socioeconomic status is statistically significant factor causing IUGR

#### V. CONCLUSION

In conclusion, the present study reveals that Socioeconomic status, Education, Income Level and living conditions surely affect weight of Baby.

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