

Original article:

Low birth weight babies in Adolescent Pregnancy

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Abstract:

Objective: To compare Perinatal outcome between pregnant adolescent girls (age<20yrs) and pregnant adults (age 20-30 yrs).

Material and methods: Total 180 patients were taken 90 adolescent and 90 adult as control. These patients were admitted and delivered in RMCH, Bareilly during august2014 to September 2015.

Results: Low birth weight babies were more in adolescent pregnant women compared to adult pregnant women. Preterm labour and abortion were the significant complications in the adolescent mothers.

Conclusion: Neonatal complications were more in adolescent pregnant girls especially low birth weight..

Key words: Adult pregnancy, adolescent pregnancy, neonatal outcomes, Low birth weight, pregnancy complication, pregnancy outcomes

Introduction:

Adolescence is a dynamic period of growth and development that bridges childhood to adulthood, while being distinctly different from both groups. Adolescence is “characterized by many rapid, interrelated changes of body, mind and social relationships” (WHO, 1997, p. 1). Adolescents comprise a significant part of today’s population: one in five persons is an adolescent aged 10–19 years, with 85% of adolescents living in developing countries. In some developing countries, adolescents constitute over half of the population (WHO, 2000c).¹

Adolescence is a critical period between childhood and adulthood, in which physical and mental development take place. Adolescent pregnancy is high risk pregnancy which leads to pregnancy related complications like Anaemia, PIH, Preterm labour,

CPD (Cephalopelvic disproportion), Perinatal and neonatal complications like low birth weight may be due to poor nutrition and damage to reproductive tract. In developed countries, adolescent mothers are usually unmarried where as, in developing countries like India, they are married and their pregnancy is most often welcomed by family and society, and in these societies malnutrition with poor health leads to various complications in pregnancy.²

Low socio economic status causes low birth weight due to poor nutrition.⁴ the incidence of adolescent pregnancy has increased in the present times due to earlier onset of puberty and earlier first sexual intercourse in adolescent.⁵

In the present study we have compared neonatal outcome between pregnant adolescents’ girls (15-19 years) with pregnant adult women (20-30).

Material and methods:

In the present study ethical committee clearance taken, written and informed consent were obtained from both the groups.

Total 180 patients were selected ,90 adolescents mothers who were in age group of (< 20years) and 90 adult mothers of age group of 20-30 years were taken at the same time and they were admitted and delivered with proper intra partum care in RMCH Bareilly during August 2014 to September 2015 and they were compared with following variables

- 1- Birth weight
- 2- Apgar score at 1and 5 minutes
- 3- Neonatal complications

The results were analyzed by using chi-square root, standard deviation was set a P-value <0.05 all statistical analysis was conducted by using computer software programs spss/pc.

Inclusion criteria:

Pregnant women in age group of 15-30 year and free from systemic diseases.

Exclusion criteria:

Age < 15 years and >30 years were excluded from the group and patient not giving consent for participation.

Results:

Distribution of pregnant women according to age (in years):

The Mean age was 20.97 years with standard deviation of 2.87.the minimum age was 18 Years and maximum age was 30 years.

Distribution of adolescents and adults according to socio economic status:

Seventy two patients (80%) belong to low socio-economic status in adolescent group compare to 56(62.2%) woman in adult group, 18(20%) women belong to middle socio-economic status and 34(37.8%) women in adult group.

Distribution of Adolescents and Adults According To Education:

In the adolescent group there were 18(20%) literate women and the same figure for adult group was 38 (42%). The number of illiterates were 72(80%) in adolescent and 52(57.8%) adult group. Adolescent group was having more number of illiterates than the adult group, may be because of their low socio-economic status and unawareness of education

Table-I Distribution of adolescents and adults according to admission status:

Admission status	Adolescent	%	Adult	%	Total
Booked	64	71.1	68	75.6	132
Unbooked	26	28.9	22	24.4	48

TABLE-II Distribution of adolescents and adults according to mode of delivery:

Mode of delivery	Adolescents	%	adult	%	Total
Elective LSCS	4	4.9	6	6.8	10
Emergency LSCS	40	45.5	32	36.4	72
Vaginal delivery	24	29.3	40	45.5	64
PTVD	16	18.2	8	9.1	24
Instrumental delivery (vacuum delivery & outlet forceps)	8	9.8	2	2.3	10

TABLE-III Comparison of perinatal outcome between adolescents and adults:

Complications	Adolescents	%	Adults	%	Total	p-value
Prematurity	38	42.2	24	26.7	62	0.0281
Low birth weight	38	42.2	16	17.8	54	0.0003
Birth asphyxia	30	33.3	24	26.7	54	0.3291
Perinatal fetal loss	2	2.2	0	0.0	2	0.4770
Multiple anomalies	2	2.2	0	0.0	2	0.4770

Discussion:

In this study we did not find any unmarried adolescent mother. In accordance with other studies we found that low socio economic status was an important determinant in causing prematurity and low birth weight.⁶

Low birth weight is a key predictor of malnutrition and important determinant of infant mortality.⁷ The

worst complication of low birth weight is growth retardation and if it is a girl child it further leads to malnutrition throughout adolescence and adulthood and if she becomes pregnant she will give birth to low birth weight baby small mother have small babies and this vicious cycle goes on.⁸

In this study, incidence of low birth weight and premature babies were found to be significantly

higher in adolescent mothers compared to adult mothers.

Conclusion:

Adolescent pregnancy continues to be a major social concern. The social and economic impact of adolescent pregnancy is great, not only for the adolescent but also for the society. So We should

encourage and provide adequate prenatal care to get positive obstetric outcome.

The problem of adolescent pregnancy needs to be addressed with a multifaceted approach. By increasing public awareness regarding the use of contraceptives, female education and enforcing marriage laws, it will decrease of adolescent pregnancy and its complications.

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