

## **Outcome of Teenage Pregnancy Associated with Medical Conditions**

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### **Abstract:**

**Objective:** This study was carried out to evaluate the Maternal and fetal outcome of teenage Pregnancy with different medical conditions during Pregnancy in the selected high risk hospital population of Bangladesh.

**Methods:** This was a cross sectional study. The study was done on 50 (fifty) teenage pregnant adolescent admitted in the Dhaka medical college Hospital and Bangabandhu sheikh Mujib Medical University Hospital during the study period July 2004 to June 2005. Samples were selected randomly from the admitted patients. **Results:** Seventy five percent of the mother had complication during delivery, of them 21.42% had PPH, 14.28% had inadequate lactation, 10.71% had post partum eclampsia, another 10.71% had wound dehiscence, 7.14% had post spinal headache. Eighty four percent of the babies were alive, of them Forty percent required resuscitation. Ten percent were dead and 6% were still born. Fourty eight percent of the new born had birth weight less than 2.5 kg, 32% had more than 2.5kg. APGAR score at one minute varied between 5-7 in 75% of cases and was 8-9 in 22.5%. Only 2% has <5. APGAR score at five minutes varied between 8-9 in 92.5% of cases. 40% of the babies developed jaundice, 30% babies were birth asphyxiated, IUGR 8%, prematurely 6%, congenital anomalies 4%.

**Conclusion:** Outcome of teenage pregnancy with medical conditions is poor.

### **Introduction:**

Teenage Pregnancy is a pregnancy that occurs in an adolescent. An adolescent is a female who has reached puberty and is 19 years old or younger. Puberty is a stage of adolescence when a girl can sexually reproduce.

It is well known that pregnancy in adolescent has an increased risk of adverse reproductive outcome. Adolescents aged 15 years or younger had higher risk of maternal deaths, early neonatal death and anaemia compared with women aged 20 to 24 years<sup>2</sup>. When maternal anemia is diagnosed before midpregnancy, it

has been associated with an increased risk of preterm delivery<sup>3</sup>.

Hypertension, especially severe hypertension, specially associated with an appreciable increase in maternal and perinatal morbidity but not perinatal mortality<sup>4</sup>.

Friedman and Neff in women with no hypertension or proteinuria. Ferrazzani et al<sup>5</sup> reported a perinatal mortality rate of 129 per 1000 in 147 women with proteinuric preeclampsia, and Lin et al<sup>6</sup> reported a rate of 127 per 1000 in 79 nulliparas with preeclampsia

It is a general clinical observation that, the number of pregnant women with pregestational type 2 diabetes has become more frequent in the recent years: however, little knowledge exists concerning the prevalence and outcome of these pregnancies<sup>7,8</sup>.

### **Materials & Methods**

This was a cross sectional study. The study was done on 50 teenage patients admitted in Dhaka Medical College Hospital and Bangabandhu Sheikh Mujib Medical University Hospital during the study period July 2004 to June 2005. Samples were selected randomly from the admitted patients. A datasheet/questionnaire was made. It was filled up with recording of all relevant parameters and these were then assessed and evaluated.

Careful history taking and thorough clinical examination was performed with the aim of detecting any clinical

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symptoms and signs suggestive of warning complication of pregnancy and delivery including perinatal complications. At entry into the study, a detailed history about socio demographic, past history, present history, record of antenatal check up and present complication was studied. On admission into labour ward, a questionnaire was filled up. Age of the patient was calculated in years and was recorded accordingly. Available standard care was provided to all and mode of delivery was recorded also. Perinatal mortality rate was calculated by foetal death after 28 weeks of gestation up to death within one week of delivery per 1000 live births. At birth, babies were examined for any congenital malformation. Babies were assessed by APGAR score at 1 and 5 minutes after birth, birth weight, admission to neonatal ward was recorded and final perinatal outcome was noted. Age distribution and birth weight of babies in grams was recorded and was analyzed. Results were analyzed by using statistical software programme SPSS version<sup>12</sup>.

### Results:

Maximum teenage pregnancy occurred in the age distribution between 17-18 years. Majority of teenage patients were house wives (78%). Others are garments worker 12%, day labour 6%, maid 2%, service holder 2%. Majority of the mothers had primary education (60%), followed by can sign only 18%, Illiterate 16%, secondary 6%. There was little tendency of contraceptive use among teenage mothers. 64% had never used it, 12% had irregular use, 14% mothers had contraception used by themselves and 10% patients' husband used it. Socio Economic condition of teenage patients was poor. Most of the patients were low income group of Tk.3000 (58%) followed by 36% between Tk. 3000-5000 and only 6% were under the income group of >Tk.5000. Most of the patient had either irregular or infrequent or no antenatal checkup. Only 24% had regular antenatal checkup.

All the teenage mothers had anemia either in mild form or in moderate form.

Among the teenage mothers in this study, nobody had jaundice except one which is unrelated to pregnancy. Thirty percent of the patients had no edema. Others had some sorts of edema either in mild or moderate form. But 4% had developed severe edema. Tendency of high blood pressure was less in teenage mothers, seventy four percent of the mothers were normotensive. Twelve percent developed moderate hypertension and another Twelve percent developed severe hypertension also.

no urine albumin was noted in 76% of the patients. 2% develops severe albuminuria, 14% develops moderate albuminuria and 8% mild albuminuria. Thirty four percent of the patients had oligohydramnios, 3% had polyhydramnios others had normal average amount of liquor. During delivery 50% patient had normal duration, 34% showed prolonged first stage, 14% cases had prolonged second stage. Seventy five percent of the mother had complication during delivery of them 21.42% had PPH, 14.28% had inadequate lactation, 10.71% had post partum eclampsia, another 10.71% had wound dehiscence, 7.14% had post spinal headache. Eighty four percent of the babies were alive, of them 40% required resuscitation. 10% were dead and 6% were still born. 48% of the new born had birth weight less than 2.5 kg, 32% had more than 2.5kg. APGAR score at one minute varied between 5-7 in 75% of cases and was 8-9 in 22.5%. Only 2% has <5. APGAR Score at five minutes varied between 8-9 in 92.5% of cases, highest mortality of babies were due to prolonged obstructed labour (37%) followed by antepartum eclampsia (24%), birth asphyxia (13%). Forty percent of the babies developed jaundice, 30% babies were asphyxiated, IUGR 8%, prematurely 6%, congenital anomalies 4%.

### Discussions:

The health and life of adolescent girls below the age of 19 are put at risk by pregnancy and childbirth, especially where living conditions are poor and health care inadequate. The younger the adolescent, greater the risk.

Regarding clinical parameter of the patient the incidence of anemia was much higher. All the teenage mothers were anemic. Either in mild form or in moderate form almost similar to study by Anita Pal et al.<sup>9</sup> It was mostly nutritional anemia. In this series 70% patients had some sorts of edema in the form of either mild or moderate or severe. Twenty eight percent of the patients developed pregnancy induced hypertension, 2% developed severe albuminurea, 14% developed moderate albuminurea, and 8% had mild albuminurea.

Regarding the perinatal outcome, 84% of the babies were alive. Of them 40% required resuscitation, 10% were dead and 6% were still birth. The causes of mortality found in the study are due to antepartum eclampsia 25%, obstructed labour 37.5%, premature rupture of membrane 12.5%, birth asphyxia 12.5%. This study also coincides with a study of India<sup>1</sup>. Regarding morbidity of the baby 40% of the babies developed jaundice, 30% of the babies were birth asphyxiated, IUGR 8%, prematurity 6%, congenital anomalies 4%.

The relationship between anemia or iron deficiency anemia and increased risk of preterm delivery (<37 wk

gestation) has been found by several studies<sup>1,13</sup>. Hypertension, especially severe hypertension, was associated with an appreciable increase in important maternal and perinatal morbidity but not perinatal mortality<sup>13</sup>.

Friedman and Neff in women with no hypertension or proteinuria. Ferrazzani et al.<sup>5</sup> reported a perinatal mortality rate of 129 per 1000 in 147 women with proteinuric preeclampsia, and Lin et al reported a rate of 127 per 1000 in 79 nulliparas with preeclampsia.

A study from Birmingham, U.K., showed a similar perinatal mortality but a higher frequency of congenital malformations, preterm delivery, large-for-gestational-age infants, and fetal loss before 24 weeks' gestation in 57 pregnancies in women with type 2 diabetes compared with pregnancies in women with type 1 diabetes. In 182 pregnancies in women with type 2 diabetes compared with the general population, there was a 2.5-fold greater risk of perinatal mortality and an 11-fold greater risk of a congenital malformation is. A study from New Zealand reported a threefold increased perinatal mortality rate in pregnancies related to type 2 diabetes compared with pregnancies related to type 1 diabetes. In addition, the study indicated that the outcome was poorer if type 2 diabetes was diagnosed during pregnancy compared with before pregnancy<sup>17</sup>.

**Table I: Perinatal Outcome**

Perinatal Outcome		Frequency
Valid	Alive with resuscitation	22
	Alive without resuscitation	20
	Dead Still birth	3
	Total	50

**Table II: Weight of the baby**

I Morbidity of the baby		Frequency	Percent	Valid Percent
Valid	Prematurity	3	6.0	10.0
	Birth Asphyxia	9	18.0	30.0
	IUGR	4	8.0	13.3
	Jaundice	12	24.0	40.0
	Congenital Anomalies	2	4.0	6.7
	Total	30	60.0	100.0
Missing	System	20	40.0	
	Total	50	100.0	

**Table III: APGAR score of the baby at one minute**

APGAR score		Frequency	Percent
Valid	6-7	3	6.0
	8-9	37	74.0
	Total	40	80.0
Missing	System	10	20.0
	Total	50	100.0

**Table IV: APGAR score of the baby at five minute**

APGAR score		Frequency	Percent	Valid Percent
Valid	<5	1	2.0	2.5
	5-7	30	60.0	75.0
	8-9	9	18.0	22.5
	Total	40	80.0	100.0
Missing	System	10	20.0	
	Total	50	100.0	

**Table V: Morbidity of the baby**

Weight of the baby.		Frequency	Percent	Valid Percent
Valid	More than 2.5	16	32.0	40.0
	Less than 2.5	24	48.0	60.0
	Total	40	80.0	100.0
Missing	System	10	20.0	
	Total	50	100.0	

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