

# Obstetrical and Fetal Outcome in Teen Age Primigravida

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A prospective case control study was carried out in Gynae Unit-II, Sir Ganga Ram Hospital, Lahore from December, 2002 to December, 2003. Total 60 cases were included in study. 30 were cases of primigravida < 19 years of age (study group and 30 cases > 20 years of age (control group) were studied after 24 weeks of gestation. The mean age for study group was  $18.03 \pm 0.89$  and control group was  $24.23 \pm 2.80$ . 8 subjects (26%) of PIH in study group and 3(10%) were in control group. 2 subjects (6%) of UTI in study group and 0 case in control group. 6(20%) subjects were anemic in study group and only 1(3%) was in control (6%) no case in control group. Antepartum haemorrhage in 2 subjects (83%) of normal vaginal delivery in study group there were 25 cases (83%) while 22 subjects, (73%) in control group. Instrumental delivery in 1(3%) subject in study group. 3 subjects (10%) of postpartum haemorrhage were found in study group and only 1(3%) in control group. Puerperal infection was present in 4 subjects (13%) study group in 2 subjects (6%) in control group. 10 neonates (33%) were of low birth weight in study group, while 6 neonates (60%) in study group not seen in control group. We concluded teenage pregnancy is high risk pregnancy.

**Key words:** Teenage primigravida, complication of antenatal intrapartum & postpartum period.

Pregnancy is a physiological change and new experience in life of female. Maternal age and ethnicity are inter relating and interacting sociodemographic factors that influence maternal health and child bearing<sup>1</sup>. There is no consistent evidence to support the view that particular age is ideal for bearing the 1<sup>st</sup> pregnancy: Although child bearing is least hazardous in women aged 20-29 years<sup>2</sup>.

Incidence of teenage pregnancy showed marked variations between developed and developing countries<sup>3</sup>. Each year more than 14 million adolescents become pregnant<sup>4</sup>. The births resulting from these pregnancies occurred for 20% of total births in USA<sup>1</sup>. Teenage pregnancy has been identified as a target for health improvement by British Government. It has been identified in medical literature as problem of teenagers and society<sup>5</sup>. Teenage pregnancy constitute a high risk group<sup>6</sup>. Genital infections such as chlamydia, tachomatis are common among sexually active teenage girls<sup>7</sup>. Lack of admission and compliance to antenatal care are associated with increased risk of pregnancy outcome<sup>8,9,10</sup>. In teenage pregnancy there is increased risk of anemia, PIH and perinatal mortality. The increased risk of PIH is significant, if pregnancy occurs within 24 months of menarche<sup>11</sup>.

Pregnant adolescents more likely experience abnormal labour patterns such as prolonged and precipitous labour and both may be associated with neonatal sequelae<sup>11</sup>. Pregnant adolescence may be deficient in calcium Vit A & iron. They need professional help in identifying food sources, to supplement or improve her nutrient intake, not only during pregnancy and but also in postpartum period. Therefore, the consequences of child bearing for adolescent parents, children and society are severe. A serious consequence is the acquisition of STD's particularly immune deficiency syndrome.

Information alone will not prevent teenage pregnancy but increased communication between parents and teenagers and teachers can improve outcome of teenage pregnancy. So special attention should be given to teenage pregnancies in antenatal intrapartum and postpartum period.

## Materials and methods:

This study was conducted over a period of one year from Dec. 02 to Dec. 03 in Department of Obstetrics & Gynaecology, Unit-II in Sir Ganga Ram Hospital, Lahore. It was cross sectional study. Total 60 patients were included in study. 30 cases were of <19 years primigravida and 30 controls of primigravidas >20 patients. Inclusion criteria were primigravida <19 years. After 24 weeks of gestation. Multiple pregnancy and before 24 weeks of gestation were excluded. Data analysis was performed on computer by using SPSS Version. 10. Frequency tables and percentages were calculated by same programme. Odds ratios (OR) was calculated and their statistical significance was tested. P value < 0.05 was taken as significant.

## Results:

Total 60 patients were included in study. 30 were of < 19 years primigravida (study group) and 30 controls of primigravida  $\geq$  than 20 years. In study group, 23 cases (76.67%) were belonged to 18-19 years of age and 7 cases (23.33%) were between 16-17 years of age. The mean age was  $18.03 \pm 0.89$ . Out of 30 controls 17 cases (56.67%) were between 20-25 years and 13 cases (43.33%) were belonged to 26-30 years of age. The mean age was  $24.23 \pm 2.80$ . There were 8 cases (26%) of pIH in study group and 3 patients 10% were in control group. 2 patients (6%) of UTI in study group and no case in control group. Anaemia was present in 6 patients (20%) of study group



and 5 patients (16%) in control group. There were 8 patients (26%) of pre-term delivery in study group, while only 1(3%) was in control group. APH noted in 2 patients (6%) in study group.

Table I shows complications in intrapartum period. There were 25 patients (83%) of normal vaginal delivery in study group, while 22 patients (73%) in control group. 5 patients (16%) of had caesarean section (LSCS) in study group and 8 patients (26%) in control group. Instrumental delivery occurred in only 1 patient (3%) in study group. Statistically significant result of increased instrumental deliveries in teenage group.

Table I: Complications in intrapartum period

Complications	Study group		Control group		P value
	No.	%	No.	%	
Normal vaginal delivery	25	83	22	73	0.347
L.S.C.S	5	16	8	26	0.347
Instrumental	1	3	-	-	<0.01*

\*Significant

3 patients (10%) of postpartum haemorrhage were found in study group, while only 1 patient (3%) in control group. Postpartum infection was present in 4 patients (13%) in study group in 2(6%) in control group. Statistically significant difference not found in both groups.

Table II: Fetal complications

Complication	Study group		Control group		P value
	No.	%	No.	%	
Low birth weight	10	33	6	20	0.242
Anomalies	2	6	-	-	<0.01*
ICU admission	8	26	1	3	<0.01*

\*Significant

There were 10 babies (33%) of low birth weight in study group, while 6 babies (20%) in control group. Congenital anomalies were found in 2 babies (6%) in study group, whereas no case in control group. 8 babies (26%) were admitted in ICU in study group, only 1(3%) babies admitted to ICU in control group. Statistically significant number of babies with congenital anomalies found in teenage group and higher number of babies admitted in ICU in teen age group.

#### Discussion:

This study is done to see the effect of teenage on pregnancies and effect of pregnancy on teenagers.

In the present study risk of preterm (8%) delivery more than control group, that leads to more admissions of neonates to ICU. Results of study are comparable with study conducted in Shaikh Zayed Hospital in March 2000. The risk of preterm delivery in that study was 13%. There is general agreement that maternal youth is risk factor for preterm labour<sup>12</sup>.

In study by Department of Obstetrics & Gynaecology in University of Hong Kong showed high incidence of preterm delivery in teenagers<sup>13</sup>. In current study risk of APH is more and comparable to study conducted in south Africa<sup>14</sup>. Teenagers experienced high rate of placental abruption and was responsible for 2 IUD's. Perinatal mortality rate was twice as high as others. Poor outcome in teenagers in this study has been suggested due to non-compliance with antenatal checkup and lack of adherence to physician and midwives.

Recently Bukulmez and Deren (2000)<sup>15</sup> that age and lack of prenatal care were significant predictors of perinatal complications, after controlling for such risks, teenagers are not at great risk of on adverse obstetric outcome than adult women of similar sociodemographic background.

In this study the risk of instrumental deliveries, preterm deliveries and low birth weight is high in teenage group Similarly in study conducted in Riyadh Armed Forces Hospital in Saudi Arabia in 1999<sup>16</sup>. Teen age pregnancy is associated with high rate of preterm delivery, pre eclampsia and low birth weight.

In over study, NICU admission rate was 26%, similar results were seen in study conducted in Nigeria in 2003 that NICU admissions and low apgar score at 1 and 5 min in teenage pregnancy<sup>17</sup>. More vaginal deliveries in teenagers 83% in our study as compared to control group, which had more LSCS. 26%, similar results are obtained in study in U.K<sup>18</sup>. In this study low birthrate was 33% in study group and (20%) in control group similar results are seen in study conducted in Saudi Arabia<sup>19</sup>.

#### Conclusion:

This study indicates an increase risk of developing at least some complications of pregnancy and poor neonatal outcome, especially preterm delivery, pre-eclampsia, congenital malformations, intrauterine death and low birth weight infants. Preterm delivery rate was (26%) and admission to neonatal ICU was also (26%).

There is need for appropriate, education in pregnancy and advice and support for labour and child care. They need emotional support and awareness about antenatal care and advice about contraception. Media should create awareness in people and government should support these policies.

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