

## Adverse Outcome of a Teenage Pregnancy

Fouzia Shaikh, Sabreena Abbas, Farhat Sultana, Sajida Yousfani, Tariq Hasan

### ABSTRACT

**INTRODUCTION:** Pregnancy at very young age is a high risk pregnancy. It can lead to the vicious cycle of medical, physical and social problems from which a pregnant girl and her fetus can hardly escape. Approximately 90% of the teenage births occur in developing countries. In teenage pregnancy both mother and her child are at high risk of disease and death. Early pregnancy in teenage is considered as an independent risk factor for adverse pregnancy outcome.

**OBJECTIVE:** To determine the adverse fetomaternal outcome in teenage pregnancies.

**METHODOLOGY:** This retrospective study was conducted in department of obstetrics and Gynecology unit-II, Liaquat University Hospital Hyderabad from 1<sup>st</sup> January 2015 to 31<sup>st</sup> December 2015. Data was collected from hospital records of all nulliparous women aged between 13-19 years with a singleton birth of 28 weeks or above. Multigravida women, with multiple pregnancies, alcoholics, smokers, having any medical disorder and those with strong family history of hypertension were excluded from the study. Maternal & Perinatal outcome measures recorded were anemia, pregnancy induced hypertension, pre-eclampsia, preterm labour, operative delivery, stillbirth and low birth weight.

**RESULTS:** The mean age of subjects included in this study was 17.35 years  $\pm$  SD1.06 years. Average gestational age at delivery was 36.86  $\pm$ SD 2.15 weeks. Common complications seen in adolescent mothers were Anemia (34.2%), Pregnancy induced hypertension (33.3%) and preterm delivery (23.9%). Most of the deliveries carried out vaginally however caesarean section was done in 33.33% cases. Regarding fetal outcome, 12.82% deliveries ended in stillbirth and out of live newborns, 21.57% were low birth weight.

**CONCLUSION:** Teenage Pregnancy are associated with increased risk of unfavorable obstetric outcome, so every effort should be taken to provide optimal care and support to these young mothers.

**KEY WORDS:** Teenage Pregnancy, Preterm delivery, PIH, Stillbirth, Low birth weight.

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### INTRODUCTION

Adolescence is a period of transition from childhood to adulthood. According to WHO, the period of adolescence extends from 11-19 years. Pregnancy during this period is called teenage pregnancy<sup>1</sup>. Pregnancy at a very young age carries high risk as it may lead to a vicious cycle of medical, physical and social problems from which a girl and her fetus can hardly escape<sup>2</sup>.

Teenage is a quiet tender age to bear physiological stress on the body posed by pregnancy state. Pregnancy in teenage is at high risk of adverse fetomaternal consequences. Teenage girls are twice as likely to die of pregnancy and childbirth related complications as compared to age thereafter<sup>3</sup>. According to WHO, about 16 million girls aged 15-19 years and some 1 million girls under 15 give birth every year, most of them are in low and middle income countries. The

2014 world health statistics indicate that the average global birth rate among 15 to 19 years old is 49/1000 girls, with the highest rates in sub-Saharan Africa<sup>4</sup>.

Pakistan has made tremendous progress in increasing the average age at marriage for girls, which increased from 13.3 years in 1950-59 to 23.1 in 2006-07. However yet one in every two girls still married before she turns 18<sup>5</sup>.

Teenage pregnancies are associated with maternal and Perinatal morbidity and mortality. In various studies, the adverse consequences found associated with teenage pregnancies are Anemia, Severe anemia, Preterm delivery, Hypertensive disorders of pregnancy, Obstructed labour, Oligohydramnios, Operative delivery, Low birth weight neonates, still birth, meconium aspiration syndrome and Perinatal death<sup>6,7</sup>. After delivery, still there is increased risk for postpartum depression, socio-economic consequences as

intimate partner violence, poverty, problems in completing education and child abuse<sup>8,9</sup>.

Considering these adverse consequences of teenage pregnancy, we planned this study as data on adolescent pregnancy from our setup is scarce while number of teenage mother admissions is quite high. The aim of this study was to determine prevalence and fetomaternal consequences of teenage pregnancies at a tertiary care hospital of Sindh.

### METHODOLOGY

It was a retrospective study of all teenage nulliparous women (age 13-19 years) carrying singleton pregnancy of 28 weeks or above, delivered in department of obstetrics and gynecology Unit-II, Liaquat University Hospital Hyderabad from 1<sup>st</sup> January, 2015 to 31<sup>st</sup> December 2015. Multigravidas, women with multiple pregnancies, alcoholics, smokers and those with strong family history of hypertension in 1<sup>st</sup> degree relatives were excluded from the study. Data was collected on a predesigned Proforma, that included age, demographic details, booking status, gestational age in weeks, maternal outcome measures noted were Pregnancy induced hypertension (BP>140/90 mmHg on 2 occasions at least 4 hour apart), Pre-eclampsia (Pregnancy induced hypertension with significant proteinuria > 300 mg/24hours), Anemia (hemoglobin <10.5g/dl), Preterm delivery (birth of baby before 37 weeks of gestation), Operative delivery (Instrumental delivery and caesarean section) and Perinatal outcome measured by live birth, Perinatal death (still birth and early neonatal death) and low birth weight (< 2.5kg at any gestational age). Data was analyzed using SPSS version 17. Descriptive statistics in terms of mean and standard deviation were calculated for continuous variables while frequencies and percentage were calculated for categorical variables.

### RESULTS

During the study period, there were 5834 obstetric admissions, from which 4752 were delivered with 234 (4.92%) teenage pregnancies. The average age of the women was 17.35 years ±SD1.06 years. Mean gestational age of the women was 36.86 ±SD2.15 weeks. Out of 234, 156 (66.67%) were un-booked cases and 78 (33.33%) were booked. Most of the women belonged to urban areas (62.39%). Regarding mode of delivery, 156 (66.67%) were delivered vaginally and caesarean section was done in rest. The main indica-

tion of caesarean section was fetal distress and cephalopelvic disproportion. Teenage pregnancies were mainly complicated by Anemia (34.2%), Pregnancy induced hypertension (33.3%), Preterm labour (23.29%) and pre-eclampsia (16.2%). Regarding fetal outcome, there were 204 (87.18%) live births and 30 (12.82%) stillbirths. Out of live newborn, 18.80% were low birth weight. (Table I)

**TABLE I: FREQUENCY OF FETO MATERNAL OUTCOME IN TEENAGE PREGNANCY (n=234)**

Maternal outcome*	Count	%
PIH	78	33.3%
Pre-Eclampsia	38	16.2%
Anemia	80	34.2%
Preterm delivery	56	23.9%
Still births	30	12.82%
Low birth weight neonates	44	18.80%

\*Multiple outcomes are counted so don't add up to 234.

### DISCUSSION

The practice of early, child and forced marriage is widespread and occurs in all regions of Pakistan with the highest prevalence in Sindh province, due to traditional practices, cultural norms, religious beliefs and deeply rooted gender inequalities. Teen pregnancy is an important issue for several reasons. It is associated with adverse social, emotional, cultural, economic and health consequences for the mother and her child. Both developing and developed countries are struggling to reduce the incidence of teenage pregnancies-however it is still a challenge.

The prevalence of teenage pregnancy in our study is 4.9%, published literature reported its prevalence between 1.6% to 10.4%.<sup>1,10</sup> The mean age of women was 17.35 years, which is comparable to studies by Tanveer Q et al<sup>6</sup>, Yasmeen G<sup>11</sup> and Sheikh S<sup>7</sup>. The booking status was quite low (33.3%) in our study, probably reflecting lack of social support, self negligence, or her lack of awareness of pregnancy complications. This is in contrast to research conducted by Althabe F<sup>12</sup> et al, who reported booking status of teenage mothers almost equals to that of adult mothers. Regarding mode of delivery, 33.33% teenagers delivered by caesarean section. The high rate of caesarean section may be due to complications associated with teenage pregnancy. Giving a scar to uterus at

such an early age can have significant impact on her obstetric experience. This finding is in agreement to other studies conducted by Tyrberg<sup>13</sup> and Qazi G<sup>14</sup>.

The most common maternal complications of teenage pregnancy in current study were Anemia (34.2%), Pre-term labour (23.89%), and Hypertensive disorders (PIH 33.3% and Pre-eclampsia 16.2%). Talawar S quoted the risk of Anemia as 30%, Preterm delivery 14%, and hypertensive disorders 32%<sup>1</sup>. Almost identical figures had been reported by other studies.<sup>15,16</sup>

Regarding Perinatal outcome, 12.82% deliveries ended in still birth, and 21.57% newborns were low birth weight. In a study conducted in India had reported low birth weight babies, higher Neonatal intensive care unit admissions, however no increased risk of still birth or Perinatal death associated with teenage pregnancy had been reported<sup>17</sup>.

Teenage pregnancy is associated with significant obstetric complications for both mother and her child. Pakistan is a country which is mired in primitive traditions and customs, here early marriages are quiet common. Hence a properly planned prenatal care, care during pregnancy and essential newborn care should be provided to teenage mother, if outcome is to be optimized. Contraception should be an essential component of counseling, so that a teenage mother should have next pregnancy when she is an adult.

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*AUTHOR AFFILIATION:*

**Dr. Fouzia Shaikh** (*Corresponding Author*)

Associate Professor  
Department of Obstetrics & Gynecology  
Liaquat University of Medical & Health Sciences  
(LUMHS), Jamshoro, Sindh-Pakistan.  
E-mail: doctor.fozia@yahoo.com

**Dr. Sabreena Abbas**

Senior Registrar  
Department of Obstetrics & Gynecology  
LUMHS, Jamshoro, Sindh-Pakistan.

**Dr. Farhat Sultana**

Senior W.M.O  
Department of Obstetrics & Gynecology  
LUMHS, Jamshoro, Sindh-Pakistan.

**Prof. Sajida Yousfani**

Department of Obstetrics & Gynecology  
LUMHS, Jamshoro, Sindh-Pakistan.

**Dr. Tariq Hasan**

Postgraduate Student, Department of Medicine  
LUMHS, Jamshoro, Sindh-Pakistan.