

Fetomaternal Outcome of Teenage Pregnancy in a Tertiary Care Hospital: A Retrospective Study

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Abstract

Background: Teenage pregnancy is associated with series of maternal and fetal complications like anaemia, pre-eclampsia, preterm delivery, increased LSCS rate due to cephalopelvic disproportion, fetal distress, low birth weight, still birth. Early motherhood can also affect the psychosocial development of the infant. Hence the present study is conducted to assess the incidence of teenage pregnancy and various maternal and neonatal outcomes of these pregnancies.

Objectives: To study the maternal and fetal outcomes in teenage pregnancy.

Materials and Methods: A Retrospective Observational study was conducted among 50 pregnant mothers admitted in labour ward as Teenage pregnancy at Trichy SRM Medical College Hospital and Research Centre, Trichy from June 2021 to February 2022. Data was collected and entered in MS excel and analysis done using SPSS software. Appropriate descriptive and inferential statistics were used, considering p value of < 0.05 as significant.

Results: The mean age of mothers is 17 years. About 84% are primi mothers and 16% are multi gravida mothers. About 54% had LSCS and 46% had normal vaginal delivery. About 80% of mothers had comorbidities. Among those with comorbidities, Anemia is most followed by others like Gestational diabetes mellitus, PIH, followed by PROM. About 64% had low birth weight and 36% were of normal birth weight. 70% had APGAR score of less than 7/10. About 20% of newborn had NICU admission. About 4% of perinatal death occurred.

Conclusion: Teenage pregnancy has to be reduced by employing various health promotion strategies like school education, promotion of contraceptive usage etc. The complications can be reduced by providing the appropriate antenatal care, timely management and referral of mothers.

Keywords: Teenage Pregnancy, Maternal Outcomes, Fetal Outcomes.

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Introduction

Teenage pregnancy is a major public health problem worldwide. WHO defines teenage pregnancy as any pregnancy from a girl who is 10 to 19 years of age, age being defined as her age at the time of delivery [1]. The NHFS V 2019 -2021 estimates that overall teenage pregnancy in India was 6.8%. In India, teenage pregnancy is mostly because of early marriages and early child bearing.

Most of the teenage pregnancies are unplanned and unintended pregnancies [2]. Various factors are found to be responsible for adolescent pregnancy. They are early marriage, sexual violence, limited maternal education, lack of availability of contraceptives, lack of parental support, lack of financial autonomy, pornography, religious beliefs and child of a broken family [3,4].

Girls with the teenage pregnancy are at higher risk of PPRM, increased incidence of anemia, occurrence of PIH, increased risk of operative vaginal deliveries, maternal deaths and postpartum depression [5-7].

Various neonatal outcomes also occur as a result of teenage pregnancy. They are low birth weight, early neonatal death, congenital anomalies, prematurity, stillbirth, and small for gestation age [8,9]. Girls are also susceptible to various non-medical problems like guilt, inability to continue education and financial constraints [1,10].

These pregnancies are reduced by the giving the sex education, increasing the accessibility to contraceptives and reducing the marriage before the age of 18 years [11].

There is abnormal biological, mental or social maturation and that will have the effect on the maternal and fetal outcomes due to bad habits, stress, anxiety, malnutrition, insufficient antenatal care, biological immaturity and depression [1,12,13].

Teenage pregnancy is associated with series of maternal and fetal complications like

anaemia, pre-eclampsia, preterm delivery, increased LSCS rate due to cephalopelvic disproportion, fetal distress, low birth weight, still birth. Early motherhood can also affect the psychosocial development of the infant. Hence the present study is conducted to assess the incidence of teenage pregnancy and various maternal and neonatal outcomes of these pregnancies.

Objective

To study the maternal and fetal outcomes in teenage pregnancy.

Methodology

This is a retrospective observational study conducted in the Department of Obstetrics and Gynecology at Trichy SRM Medical College Hospital and Research Centre. The study was conducted after getting approval from Institutional Ethics committee of the hospital. About 50 pregnant women admitted in labour ward at Trichy SRM Medical College Hospital and Research Centre, Trichy as Teenage pregnancy from April 2021 to March 2022 were included in the study.

Inclusion Criteria:

- Age 15-19 years
- Primigravida/Multigravida

Exclusion Criteria:

- Age more than 20 years
- Preexisting major medical and surgical illness which could affect the outcome.

Data was retrieved from hospital record for the study period. Detailed history & examination findings noted. The study tool comprised of basic demographic details and details pertaining to the antenatal, natal and post-natal events. Data like obstetric code, educational status, antepartum, intrapartum, postpartum complications, mode of delivery, whether normal vaginal delivery or lower segment caesarean section were collected.

Neonatal outcome in terms of preterm, low birthweight, still birth, NICU admission were noted.

Statistical Analysis

Data was entered in MS excel and analysed using SPSS software. Appropriate descriptive and inferential statistics like Chi-

square test and Fischer exact test were used, considering p value of < 0.05 as significant.

Results

In this study, 50 PROM mothers were included and studied for the maternal and fetal outcomes. The results are discussed below.

Table 1: Delivery details

Details		Number	Percentage
Age	Mean	17 years	SD 2 years
Gravida	Primi	42	84%
	Multi	8	16%
Mode of Delivery	Normal Vaginal Delivery	23	46%
	LSCS	27	54%

Table 1 shows the mean age of the mothers is 17 years. About 84% were primi mothers and 16% were multi gravida mothers. About 54% had LSCS and 46% had normal vaginal delivery.

Table 2: Maternal outcomes

Comorbidities	Number	Percentage
Present	10	20%
Absent	40	80%
Nature of Comorbidity		
Anemia	20	50%
Gestational Diabetes	10	20%
Pregnancy induced hypertension	8	16%
Preterm	7	14%
PROM	5	10%

Table 2 shows about 80% of mothers had comorbidities. Among those with comorbidities, Anemia is the most common followed by others like Gestational diabetes mellitus, PIH, followed by PROM.

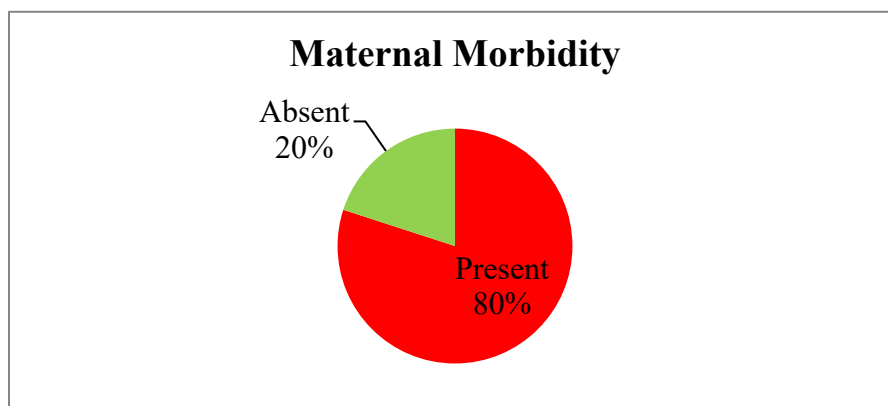
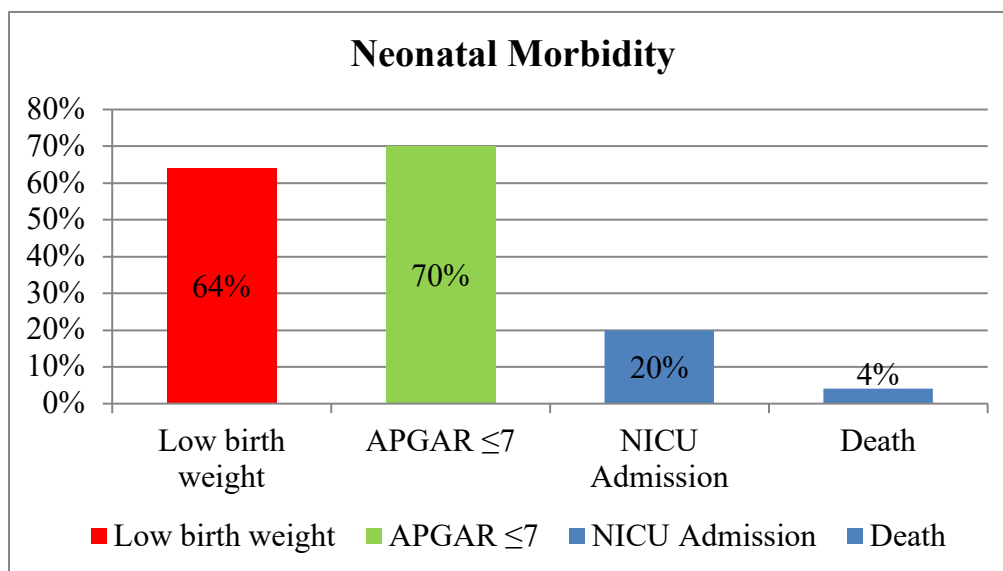


Figure 1: Maternal morbidity

Table 3: Fetal outcomes

Birth weight	Number	Percentage
< 2.5 kg	32	64%
>2.5 kg	18	36%
APGAR score at 5 min		
≤7	35	70%
>7	15	30%
NICU admission		
Yes	10	20%
No	40	80%
Perinatal Deaths		
Yes	2	4%

Table 3 shows about 64% had low birth weight and 36% were of normal birth weight. 70% had APGAR score of less than 7/10. About 20% of newborn had NICU admission. About 4% of perinatal death occurred.

**Figure 2: Neonatal morbidity**

Discussion

Teenage pregnancy remains one of the major health issues in our country due to prevailing social dogmas, age old traditions and poor access to health care in remote rural areas and illiteracy. Education plays a major role in decreasing the incidence of teenage pregnancy and its associated health risks and psychological issues.

Teenage mothers should be counselled to have regular antenatal checkups which is

essential for early detection of complications related to both mother and fetus. Adequate antenatal, intrapartum and post-partum as well as neonatal care can minimize the risk associated with child birth and its effect on maternal and child health.

In our study, the mean age of mothers is 17 years. The study finding is comparable to the study by Zahiruddin *et al.* About 84% were primi mothers and 16% were multi gravida

mothers. The study finding is comparable to the study done by Junita *et al.*

About 54% had LSCS and 46% had normal vaginal delivery. The study finding is comparable to study done by Rita *et al.*

About 80% of mothers had comorbidities. Among those with comorbidities, Anemia is the most common followed by others like Gestational diabetes mellitus, PIH, followed by PROM which are similar to the study done by Rita *et al.*, The studies done by Yasmin *et al.*, and Zahiruddin *et al.*, also depicted the similar maternal outcomes. The study findings are also similar to the study done by Junita *et al.*,

About 64% had low birth weight and 36% were of normal birth weight. 70% had APGAR score of less than 7/10. About 20% of newborn had NICU admission. About 4% of perinatal death occurred. The study findings are comparable to study done by Rita *et al.*, The studies done by Yasmin *et al.*, and Zahiruddin *et al.*, also depicted the similar neonatal outcomes. The study findings are similar to the study conducted by Junita *et al.*,

Conclusion

This study was done to assess the maternal and fetal outcome among the mothers with teenage pregnancy. The study shows that maternal morbidity is seen in 80% of mothers. Neonatal outcomes are also unfavourable. Teenage pregnancy has to be reduced by employing various health promotion strategies like school education, promotion of contraceptive usage etc. The complications can be reduced by providing the appropriate antenatal care, timely management and referral of mothers.

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