



Research Article

Maternal and Fetal Outcome in Adolescent Pregnancy

Authors

Dr J. Bindal¹, Dr Kavita Gupta²

¹Professor and Head, ²P.G. Student

Department of Obstetrics, Kamla Raja Hospital, G.R. Medical College, Gwalior (M.P.), India

Abstract

Background: Adolescent pregnancy is significant burden as compared to adults because of physical immaturity and overlapping maternal growth, nutritional status, socioeconomic factors. 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.

Methodology: The prospective study is conducted in KRH, Department of Obstetrics and Gynaecology over a period of 6 months (January 2017 to June 2017). All pregnant women < 19 yrs coming to labour room were included in study group. History taken and examination done investigation collected.

Results: LSCS contributing to 5.15% for various indication without much difference compared to adult mother. Incidence of anemia in teenage mother is 70.80%, preeclampsia contributing 16.78%, eclampsia in 8.7%, PROM 18.97%, intrauterine infection 7.78% and dystocia 1.9%. Low birth weight was seen in 5.5%, neonatal jaundice in 4.6%, preterm birth in 3.1% and perinatal death was in 1.2%. Main indication contributing to cesarean delivery were seen in cephalopelvic disproportion (CPD) which was 74.76% followed by preeclampsia and eclampsia, fetal distress and malpresentation were in 10%, 9.04% and 6.19% respectively.

Conclusion: Teenage pregnancy is likely to aggravate the problem. As teenage pregnancy is associated with increased incidence of preeclampsia, eclampsia, preterm delivery, increased incidence of instrumental deliveries and LSCS due to cephalopelvic disproportion, neonatal complications, increased neonatal morbidity and mortality mainly due to low birth weight was noted in babies delivered to teenage mothers.

Introduction

Adolescent pregnancy is significant burden as compared to adults because of physical immaturity and overlapping maternal growth, nutritional status, socioeconomic factors.¹ 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.² It constitutes 11 percent of all the births worldwide

and 23 percent of overall disease burden due to pregnancy and child birth due to improper prenatal care needed for monitoring of maternal and fetal development.³ The incidence of teenage pregnancy varies dramatically between the different countries, of which 90 percent is contributed by developing countries.⁴

Incidence of teenage pregnancy in India is 2 women out of every 1000 pregnancies.⁵

Adolescent pregnancy is associated with various complications of mother and fetus i.e. anaemia, pre-eclampsia, eclampsia, preterm delivery, instrumental delivery, increased LSCS rate due to cephalopelvic disproportion and fetal distress are strongly associated maternal complications in teenage pregnancy. Fetal complications being prematurity, low birth weight, still birth, asphyxia, respiratory distress, birth trauma. Underdeveloped pelvis in adolescents makes them prone to have CPD and end up in caesarean delivery. As girls are still in growing period, pregnancy induces malnutrition leading to inadequate weight gain and low birth in neonates. Good antenatal care by medical professional makes a big difference in outcome of teenage pregnancy, care provider should stress upon good nutrition, and anticipate the risks of medical disorders associated with it and intervene at the earliest.

Adolescent period as well as the teenage is the transitional stages of physical, biological and psychological changes.⁶ Pregnancy in adolescent period can cause the too much stressful conditions and can lead to the common public health and social problems with the adverse medical consequences worldwide.

Teenage pregnancies constitute major sociomedical and socioeconomic problems in developing countries and are becoming more prevalent in recent times. The emergence of this teenage problem has been attributed to various factors such as early marriage, social permissiveness, unmet needs for contraceptives, maternal deprivation, no sexual health education in school, pre-existing psychosocial problems and in the family and general non-functioning family unit could be mentioned among others.⁷

The need for the study was to know the outcome of teenage pregnancy and socio demographic profile of teenage pregnancies, and incidence. The objective of the study was to know the complications in the teenage pregnancies and outcome.

Material and Methods

The prospective study is conducted in KRH, Department of Obstetrics and Gynaecology over a period of 6 months (January 2017 to June 2017).

Study included women < 19 yrs age group, singleton pregnancy, primi, multi, gestational age >28 weeks and study excluded age > 19 years, twin pregnancy, gestational age < 28 weeks.

All data was analyzed. All pregnant women < 19 yrs coming to labour room were included in study group. History taken and examination done investigation collected - Hb, BG, Rh typing, HIV HbsAg, VDRL, urine routine, RBS, mode of delivery (vaginal or LSCS), full term delivery or Preterm delivery, If LSCS then indication for LSCS, fetal outcome in terms of prematurity, RDS, low birth weight, still birth, NICU admission.

Results

Table 1: Total no. of deliveries

	Teenage		> 19 yrs	
	No.	%	No.	%
Total deliveries	411	10.08%	3666	89.91%
Vaginal deliveries	201	4.93%	1834	44.98%
LSCS	210	5.15%	1832	44.93%

Table 1 shows that Total number of deliveries in a study period. Among 4077 deliveries in our institute, 411 are teenage pregnancy contributing to 10.08% among than 201 had vaginal deliveries and 210 underwent LSCS contributing to 5.15% for various indication without much difference compared to adult mother.

Table 2: Complications associated with teenage pregnancy

Complications	No. of teenage pregnancy	Percentage
Anaemia	291	70.80%
Preeclampsia	69	16.78%
Eclampsia	36	8.7%
PROM	78	18.97%
Dystocia	8	1.9%
Intrauterine infection	32	7.78%

Table 2 shows that incidence of anemia in teenage mother is 70.80%, preeclampsia contributing

16.78%, eclampsia in 8.7%, PROM 18.97%, intrauterine infection 7.78% and dystocia 1.9%.

Table 3: Neonatal complication in teenage pregnancy

Neonatal complication	No. of newborn	Percentage
LBW	23	5.5%
Neonatal jaundice	19	4.6%
Preterm birth	13	3.1%
Perinatal death	5	1.2%

Table 3 shows that neonatal outcome is poor in teenage mothers as compared to adult mother, low birth weight was seen in 5.5%, neonatal jaundice in 4.6%, preterm birth in 3.1% and perinatal death was in 1.2%

Table 4: Indication for LSCS

Indication	No.	Percentage
CPD	157	74.76%
Preeclampsia and eclampsia	21	10%
Fetal distress	19	9.04%
Malpresentation	13	6.19%

Table 4 shows that main indication contributing to cesarean delivery were seen in cephalopelvic disproportion (CPD) which was 74.76% followed by preeclampsia and eclampsia, fetal distress and malpresentation were in 10%, 9.04% and 6.19% respectively.

Discussion

Teenage pregnancy exposes mother to many health related complications and newborn to poor birth outcome. Increase incidence of complications and LSCS in teenage pregnancy because of preeclampsia, eclampsia, IUGR, CPD. Total number of deliveries in a study period. Among 4077 deliveries in our institute, 411 are teenage pregnancy contributing to 10.08% among than 201 had vaginal deliveries and 210 underwent LSCS contributing to 5.15% for various indication without much difference compared to adult mother. In study done by Rita D (2017)⁸ cesarean delivery was seen in 4.32% which is advocated our and study done by Mohammed RL et al (2017)⁹ cesarean delivery was seen in 23% which is not correlated with our study.

In our study, incidence of anemia in teenage mother is 70.80% which is correlated with study done by Rita D (2017)⁸. In our study preeclampsia contributing in 16.78% which is correlated with study done by Parra-Pingel PE et al (2017)¹. In our study, eclampsia was seen in 8.7% which is correlated with study done by Rita D (2017)⁸(13.6%). In our study, PROM was seen in 18.97% which is correlated with study done by Aung SH (2017)¹⁰(26.7%).

In our study, neonatal outcome is poor in teenage mothers as compared to adult mother, low birth weight was seen in 5.5%, neonatal jaundice in 5% which is correlated with study done by Aung SH (2017)¹⁰ (low birth weight in 11.6% and neonatal jaundice in 5%).

In our study, main indication contributing to cesarean delivery were seen in cephalopelvic disproportion (CPD) which was 74.76%, preeclampsia and eclampsia were seen in 10% and fetal distress in 9.04% which is correlated with study done by Rita D et al (2017)⁸ (CPD in 74.2% and preeclampsia, eclampsia in 12% and fetal distress in 9.4%). In our study, malpresentation seen in 6.19% which is correlated with study done by Aung SH (2017)¹⁰ (6.7%).

Conclusion

Present study recommends that in order to improve the teenage health periodic information, education, community activities, ANC camps to be held at primary health care centers. Public awareness to be created regarding health of teenage girls and right of education to girls. Law against early marriage i.e. less than 18 years, need to be implemented strictly which will prevent substantiate number of teenage pregnancies, in turn obstetric complications, maternal and neonatal morbidity and mortality. In order to reduce the teenage pregnancies WHO Guidelines as stated below on preventing early pregnancy and poor reproductive outcomes amongst adolescents in developing countries has been recommended. Reduce the number of marriage before 18 years. Prevent pregnancy before age of 20 years.

Increased access of contraception. Reduce unsafe abortions among adolescents. Increased use of skilled antenatal check-up, child birth, post-natal care.

In developing country like India, teenage pregnancy is likely to aggravate the problem. As teenage pregnancy is associated with increased incidence of preeclampsia, eclampsia, preterm delivery, increased incidence of instrumental deliveries and LSCS due to cephalopelvic disproportion, neonatal complications, increased neonatal morbidity and mortality mainly due to low birth weight was noted in babies delivered to teenage mothers.

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