



ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

STUDY OF MATERNAL AND FETAL OUTCOME OF TEENAGE PREGNANCY AT TERTIARY CARE HOSPITAL

KEY WORDS: Teenage pregnancy, Adolescent pregnancy, anaemia, Eclampsia, preterm.

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ABSTRACT

Introduction: Teenage pregnancy has become an important health issue in both developed and developing countries, more s in developing countries like India. Teenage mothers are more likely to experience pregnancy related complications compared to adult mothers. They are increased risk of anaemia, pre-eclampsia, increased risk of LSCS and instrumental deliveries, Preterm, IUGR, LBW, prematurity, NICU care, RDS.

Aim and objective: study was conducted to study the complications and maternal and fetal outcomes associated with teenage pregnancy.

Methods: Teenage pregnant ladies between 13-19 years were taken up for the study. study duration was 1 year from January to December 2020, at Narayana medical college, Nellore. All cases were included in the study, irrespective of their booking and unbooking status after 28 weeks of pregnancy.

Results: Among 412 cases of teenage pregnancy, 64% have varying grades of anaemia, 5% had preeclampsia and 3% had eclampsia, 12 % had preterm labour. 33% had LSCS. 6 % requiring NICU admissions

Conclusion: Teenage pregnancy is associated with maternal and fetal morbidity and mortality so, it is important to reduce the teenage pregnancies by improving socioeconomic conditions, public health awareness, sex education, access to contraceptive services, increasing the legal age of marriage and abolishing child marriage. Proper antenatal care, institutional delivery and postnatal care helps in reducing maternal and perinatal morbidity and mortality.

INTRODUCTION:

Adolescence is the transitional phase of physical growth and psychological development between childhood and adulthood involving changes in social, mental and biological health. Teenage pregnancy according to World Health Organization (WHO) is defined as a pregnancy in a girl who is 10-19 years of age, the age of the women being defined as her age at the time the baby is born.¹ The terms “adolescent pregnancy” and “teenage pregnancy” are often used as synonyms. Worldwide every 5th child is born to a teenage mother according to the United Nations Children’s Fund (UNICEF) and it accounts for more than 13 million births each year.

Pregnancy during this phase is very stressful for a girl as they are not physically and mentally mature enough to handle the demands of pregnancy. Teenage pregnancy has become an important health problem worldwide, more specially in developing countries .It is associated with many social issues, including lower education levels, higher rates of poverty and with series of maternal complications like Anaemia, pre-eclampsia, eclampsia, preterm, instrumental delivery, increased LSCS rate due to cephalopelvic disproportion (because of underdeveloped pelvis) ,fetal distress and fetal complications like prematurity, low birth weight, still births, respiratory distress, birth trauma. Low birth weight and prematurity predisposes such children to several infant and childhood disorders and increased risk of mortality and morbidity. The objectives of the study was to know the complications and outcome in teenage pregnancies.

METHODOLOGY

Prospective study is conducted in NMCH, Nellore in dept of OBG over a period of 1 year from January 2020 to December 2020 and data will be analyzed. All pregnant coming to either OPD or directly to labour theater were included in study group. History taken and examination done. Investigations collected i.e hemoglobin, blood group and RH typing, serology, urine routine, RBS. Data Collected regarding mode of delivery, whether vaginal delivery or preterm delivery, if LSCS then indication for LSCS, fetal outcome in terms of prematurity, NICU admission, low birth weight.

Inclusion Criteria

Age of 13-19 years, primigravida/ multigravida, gestational

age more than 28 weeks.

Exclusion Criteria

Age more than 20 years.

RESULTS

Total no of deliveries in study period is 4205. Among them 412 are teenage pregnancies and the prevalence was 9.7 %.

Table 1: Distribution of women according to parity

Total no of pregnancies	Primigravida (%)	Multigravida (%)
412	350(85%)	61(15%)

Out of 412 teenage pregnancies ,350 were primigravida accounting for 85% and 61 were multigravida accounting for 15%.

Table 2: Distribution of women according to booking status

	No of cases	%
Unbooked (<3 ANC's)	256	62%
Booked (>3ANC's)	156	38%
Total	412	100%

This table shows that 62% cases had <3 ANC's and 38% has >3 ANC's.

Table-3: Distribution of women according to mode of delivery

	No of cases	%
LSCS	136	33%
vaginal deliveries	252	61%
full term	180	44%
Preterm	44	11%
Spontaneous	27	6%
Instrumental delivery	24	6%
Vaccum	16	4%
Forceps	8	2%
Total	412	100%

This table shows that, incidence of vaginal delivery was higher in present study.61% had vaginal delivery,44% had full term ,11% had preterm ,6% had spontaneous vaginal delivery respectively.

Table 4: Distribution of patients according to Indications of LSCS.

Indications	No of cases	%
Cephalopelvic disproportion	70	52%
Fetal distress	34	24%
Failed induction	10	8%
APH	7	5%
Severe Oligohydramnios	3	2 %
Malpresentations	6	5%
Obstructed labour	3	2 %
Dystocia	3	2%
Total	136	100%

This table shows that, cephalopelvic disproportion (52%) and fetal distress (24%) are the most common indications of LSCS.

Table 5: Distribution of women according to maternal complications.

	No. of cases	%
Anaemia	238	64%
pre-eclampsia	20	5%
Eclampsia	11	3%
Abruptio placenta	7	2%
Placenta previa	3	1%
Preterm labour	45	12%
PROM	41	11%
Oligohydramnios	7	2%
Total	372	

This table shows that anaemia is the most common complication seen in 64%, preterm labour and PROM contributes to 12% and 11% respectively.

5% cases had primary PPH. perineal tear and UTIs contributes to 4 % and 5% respectively.

Table 6: Distribution of Neonatal outcome in teenage pregnancy.

	No of newborns	%
Preterm births	45	11%
Low birth weight	72	17%
NICU admissions	24	6%
IUGR	12	3%
IUFD	2	0.4%

This table shows low birth weight (17%) is the most common perinatal complication followed by preterm birth (11%).

DISCUSSION

Prevalence of teenage pregnancy worldwide ranges from 8% in East Asia to 55% in West Africa. Over past decade, India has successfully reduced the proportion of pregnancy between 15-19 years to half (16% during NFHS-National Family Health Survey 3 in 2005-2006 and 7.9% during NFHS-4 in 2015-2016). Still, the estimation by United Nations Population Fund (UNFPA) runs to 11.8 million teenage pregnancies for the country. In our study the incidence of teenage pregnancy was 9.7%. According to the NFHS-4, Andhra Pradesh has the highest number of cases of teenage pregnancy in south India. In rural areas, the incidence of teenage pregnancy cases was 13.2% as compared to 8.8% in urban areas. The prevalence of teenage pregnancy in our study which was conducted in our urban tertiary centre was 9.7% which was at par with the numbers quoted by the NHFS-4 data.

It remains major health issue in our country due to poor access to health care in remote rural areas, illiteracy leads to lack of knowledge and puts adolescents at risk for early pregnancy. They should be counselled to have regular ANC's for early detection of complications in mother and fetus. so it is important to reduce the incidence of teenage pregnancies in order to reduce the incidence of maternal and fetal morbidity.

It has long-term implications on maternal health like chronic anaemia, risk of cervical cancer, risk of molar pregnancy and invasive mole, uterine prolapse, genital tract injuries like fistulas, pelvic inflammatory disease, STIs. Rate of caesarean delivery was high, predominant indication being CPD, fetal distress. Rate of instrumental deliveries was high due to poor maternal bearing down efforts and underdeveloped pelvis. Significant number of neonates had low birth weight due to malnutrition, medical diseases associated with pregnancy leading to IUGR and prematurity and they were at increased risk of morbidity and mortality.

In Okram et al, the study conducted in 2019 in India, majority of teenage pregnant women were primiparas accounting for 86%, and 14% were multiparas; this correlates with the current study where primiparas comprised 85% and multiparas 15%; which was comparable with the study by Mahavarkar et al which showed a similar incidence of 86.85%. The incidence of hypertensive disorders as reported in other studies were as follows: 14.2% by Sharma et al, 10.6% by Sarkar et al and more than 13.05% by Padte et al. In our study the incidence of pre-eclampsia accounting for 5% and 3% were eclampsia. Yasmin et al, conducted a study on teenage pregnancy which showed the incidence of hypertensive disorders to be 20.17%, which was higher than our study.

In the current study the incidence of anaemia was 64%. As pregnant teenagers often receive inadequate antenatal care, their anaemia during labour and the postpartum period usually get worse.

In current study the percentage of women delivered by cesarean section were 33% which was high. Of the cesarean sections, cephalopelvic disproportion (CPD) was the major indication followed by fetal distress. The incidence of cesarean section among teenage mothers were reported 6% by Bhalerao et al, 34% by Mukhopadhyay and 26% by Dubashi. These studies also report fetal distress, CPD and contracted pelvis to be leading causes for cesarean section amongst teenage mothers like the present study.

In the current study the incidence of low birth weight is around 17%. Other Indian studies found the incidence of LBW babies between 33 and 39%. 18 In the Yasmin et al study, the incidence of LBW is 16%, which is as nearly same as that of current study. The total number of NICU admission in our study was 24 (6%) which was higher when compared with Yasmin et al study which is (4.91%). The incidence of IUGR was 3% in the current study, which is less than that of Yasmin et al (8.4%) and Saxena et al (5.5%)

CONCLUSION

Teenage pregnancy is widely recognized as one of the most complex and serious social, economic and health problems. Marriage law enforced by government of India with the increasing age of marriage franchised in teen girls, has mostly solved many maternal and perinatal problems related to young teenage primigravidae. Present study recommends that in order to improve the teenage health periodic information, education, community activities, ANC camps to be held at PHCs. It can be decreased by active involvement of teenagers in sex education, family life programmes, public awareness regarding health, Improving female literacy and growing of self esteem. WHO guidelines like reduce the number of marriages before 18 years, prevent pregnancy before 20 years, increased access of contraception among them are important tools in reducing teenage pregnancies.

One of the important components in RCH programmes of our country is directed towards reproductive health services of adolescents. Many other programmes are directed towards prevention and improving outcomes of adolescent pregnancy in our country.

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