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TEENAGE PREGNANCY- A STUDY OF FETO-MATERNAL OUTCOME

Gynaecology

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ABSTRACT

Background: Adolescents comprise a substantial proportion of the growing population of India. Adolescence is a transition phase where the individual faces a lot of issues involving changes in hormonal level, emotional and psychological. Cultural practices related to gender inequality, depriving education to the girl, early marriage are few factors influencing Teenage pregnancies in India. Teenage pregnancy poses various medical and social implications on both the maternal and child health.

Objectives: To study the incidence of maternal and fetal complications occurring in teenage pregnancy.

Materials & Methods: An observational study conducted on teenage mothers delivering in the Department of OBGY, ASRAMS during the period of Aug 2016- Aug 2017.

Results: Teenage pregnancies are associated with multitude of maternal complications like anaemia (38%), preterm labour (23%), PIH (13%), PROM (13%), APH & PPH (4%) and also adverse fetal outcomes like low birth weight (30%), prematurity (23%), fetal distress (22%), IUGR (3%), IUFD (3%) and still birth (1%).

KEYWORDS

Teenage pregnancy, Maternal complications, Fetal complications

INTRODUCTION

Teenage pregnancy is defined as 'pregnancy occurring between 10-19 completed years at the time of delivery'.[1]The term 'Adolescence' is used synonymously with 'Teenage'.

Adolescence is a period when structural, functional and psychosocial developments occur in a child to prepare her for assuming the responsibility of motherhood[2] Adolescence creates high nutrient demands, provides an opportunity to allow catch-up growth, and increase linear growth for the next generation. An adolescent is not yet prepared to handle child bearing, thus teenage pregnancy with adverse birth outcomes is only an indication of incomplete maternal growth.[3]

According to WHO, globally 7.3 million girls under the age of 18 years give birth every year or 20,000 births every day. Teenagers make up more than one billion i.e., nearly one fifth of the world population and India tops this chart with 20% adolescent girl population.[4] In India, teenage pregnancy is a public health problem with a child marriage rate of 47% leading to an adolescent fertility rate of 39% among girls aged 15-19years.[5]

It is estimated that 70,000 female teenagers die each year because they are pregnant before they are physically mature enough for successful motherhood.[6] Teenage pregnancies represent a high risk group with increased risk of maternal morbidity and maternal death and teenage mothers are twice as likely to die during pregnancy or chiildbirth.[7]

Teenage pregnancies may result from different reasons in developed countries as compared to developing countries. Factors that contribute to teenage pregnancies in India include[3]:

- Regional customs and religious traditions that lead to early marriage.
- Discontinued education after marriage.
- Gender inequality and patriarchal structure of families.
- Early onset of puberty.
- Earlier first sexual intercourse.
- Low contraceptive awareness.
- Sexual abuse that leads to rape.
- Poverty.

A teenage mother is likely to drop out of school, have no or low qualifications are unemployed or low paid, live in poor housing conditions. The child of a teenage mother is more likely to live in poverty, grow up without a father, become a victim of neglect or abuse, and do less well at school.

The problem of teenage pregnancy is a topic of increasing concern to the obstetrician, paediatrician and other health care professionals.

Adverse maternal outcomes of teenage pregnancy include preterm labour, premature rupture of membranes, anaemia, hypertensive disorders of pregnancy, malpresentations, abortion, medical illness and high rate of caesarean sections for cephalopelvic disproportion and fetal distress. Adverse fetal outcomes include preterm birth, low birth weight infants, still birth, IUFD, birth asphyxia, respiratory distress syndrome and birth trauma.

These adverse outcomes may be due to neglected prenatal care, illiteracy and low socio-economic status. A holistic approach is needed in developing countries to improve the awareness regarding sexual and reproductive health and provide access to health services.[8] Due to country's diversified cultures and multitude of religious practices, there is a need to address the complex mix of root causes and bring about a change in the social perception of families.

The need for the study was to know the effects of early maternal age on obstetric outcome of pregnancy, to analyze the factors contributing to the health problems of teenage mothers and neonatal consequences.

METHODS

The study was conducted on 100 antenatal patients both booked and unbooked between 15-19 years coming to the Department of Obstetrics & Gynaecology, from August 2016 – August 2017 at Alluri Sitarama Raju Institute of Medical Sciences, Malkapuram, Eluru and data will be analyzed. History noted regarding occupation and socioeconomic status and clinical examination done. Investigations done i.e., Hemoglobin, Blood group, Rh typing, Serology, Urine routine, RBS. They were followed until delivery to know mode of delivery, full term or preterm delivery, if LSCS then indication for LSCS. Data collected regarding maternal complications during antenatal, intranatal and postnatal period and fetal outcome in terms of

prematurity, RDS, low birth weight, still birth, anomalous fetus, NICU admission and data analyzed.

Inclusion criteria

All pregnant women visiting department of OBGY at ASRAMS hospital, Eluru.

- Age 13-19 years
- Primigravida / Multigravida
- Pregnancy more than period of viability (>28wks)

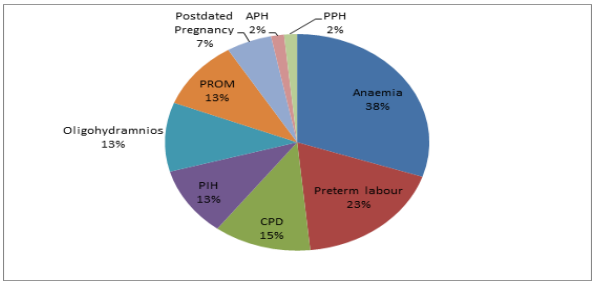
Exclusion criteria

- Maternal age > 19 years
- Cases of miscarriage

OBSERVATIONS AND RESULTS

Of 100 teenage women who gave birth during the 1-year study period, the mean age of the adolescents was 18.7 years, and 76 (76.0%) were aged 19 years at the time of delivery. Only 20 (20.0%) were aged 18 years, and 4 (4.0%) were 17 years old. As would be expected, the majority 78% of the adolescents were nulliparous.

Figure 1: MATERNAL COMPLICATIONS OF TEENAGE PREGNANCY



Anemia and preterm labour were the most common maternal complications noted in this study.No maternal mortality occurred in this study.

In the present study, 38 patients had anaemia, of these 58 % had mild anaemia (Hb 10 – 10.9 g/dl), 40 % had moderate anaemia (Hb 7-9.9 g/dl) and 2% had severe anaemia (Hb 4-6.9 g/dl).

It was noted in the current study that 23 patients had preterm labour (<37 weeks), of these majority 78.26% were late preterm (340/7 – 366/7 weeks) but had good neonatal outcome and 3 cases of very preterm (280/7 – 316/7 weeks) deliveries resulted in a dead fetus.

13 % patients had toxemia of pregnancy. The caesarean section rate was 61% in this study, 31% had spontaneous delivery, 7% had instrumental delivery and 1% assisted breech delivery.The most common indication for Caesarean section was fetal distress (36.06%) followed by cephalo-pelvic disproportion (24.59%).

TABLE 1: FETALCOMPLICATIONS OF TEENAGE PREGNANCY

S.No	Complications	No. of Cases	Percentage(%)
1	Fetal distress	22	22%
2	Malpresentation	4	4%
3	IUGR	3	3%
4	IUFD	3	3%
5	Multiple gestation	2	2%
6	Still birth	1	1%

TABLE 2 : NEONATAL BIRTH WEIGHT (n=96)

Weight in Kg	No. of babies	Percentage
<1.5 kg	1	1.04%
1.5 - 2.5 kg	28	29.16%
2.6 – 3.5 kg	62	64.58%
> 3.5 kg	5	5.2%
Total	96	100%

Of the 96 live births, 30.2 % of babies were below 2.5 kg (WHO cut off of low birth weight) and only 1 of them was very low birth weight i.e., between 1.5-2.5kg. 26 babies were admitted in NICU.

In the present study perinatal mortality was 2 %. The neonates died in the perinatal period due to prematurity and multiorgan dysfunction.

DISCUSSION

Pregnancy and childbearing in teenage women has adverse health, demographic and social implications. Many teen parents do not have the intellectual or emotional maturity that is needed to provide for another life. Often these pregnancies are not revealed for months resulting in a lack of adequate antenatal care and dangerous outcome for the babies. The likelihood decreases with the level of education of the young women. Organised prenatal care is essential as teenage pregnancy is a high risk pregnancy.

Anaemia:

38% of the teenagers were found to be anaemic in our study. Mild anaemia was found in 58% of the cases, 40% were moderately anaemic and 2% of the teenagers were severely anaemic. Chahande et al[9] (2002) study showed 72.6% of teenage pregnancies complicated with anaemia.

Neonatal Outcome:

The burden of young mother hood falls most heavily on the offspring of these mothers because of their mental and physiological immaturity to look after the newborn. Feto-maternal competition for nutrients is associated with a smaller placental mass, less placental nutrient transfer, and less uterine/umbilical cord blood transfer and thus increased association of low birth weight babies, infant morbidity and infant death with teenage pregnancy.**30% of babies weighed less than 2.5 kgs in our study.** Most of these patients came from rural areas and had inadequate antenatal checkups.

The incidence of prematurity (23%) in the present study is comparable to a study done by Yasmin et al [1] i.e., 27.4%.

The incidence of intrauterine death among these pregnancies was 3 %, all were premature deaths.Congenital anomalies were not seen in this study.

CONCLUSION

Teenage pregnancies represent a high-risk group in reproductive terms because of the double burden of reproduction and growth and till today is one of the most important public health problems. There is no doubt that the obstetrical problems can be managed by modern medicine and hence the risk of Teenage pregnancy can be diminished.

The health care provider should consider Teenage pregnancy as a 'high risk' pregnancy and should educate the pregnant teenagers to have more number of antenatal visits so that the signs and symptoms of various complications of teenage pregnancy could be recognized at the earliest. Attention should be given to the use of various screening and diagnostic tests and to the interventions needed if any complication does occur during the course of pregnancy or labour. Proper monitoring of the progress of labour is important to prevent prolonged labour.

Education of the female child can play a significant role in delaying marriage and hence delaying childbearing, thus protecting the young girl from being exposed to the various complications of teenage pregnancy. There is a need to promote different contraceptive practices among married adolescents so that future pregnancy could be delayed till they reach maturity. Access to contraceptives is the cornerstone in preventing teenage pregnancies while access to abortion services is crucial for preventing undue maternal complications and morbidity.

Good antenatal and intranatal care services, good neonatal services, contraceptive services and abortion services, all together can minimize the various risks associated with teenage pregnancies to a large extent. With all these measures, we can hope for a decline in the trend of teenage pregnancy rates and complications in the years to come.

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