

Evaluation of Clinical and Perinatal Outcomes of Teenage Pregnancies: A Study of 100 Pregnancies at a Tertiary Referral Center

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Abstract: *The aim of this study was to evaluate the maternal and foetal outcomes and complications in teenage primigravida. The present study was conducted at a tertiary referral centre in south India during the period from May 2012 to April 2015. A total of 100 cases of teenage pregnancy were prospectively included in the study. All cases with Major skeletal deformity such as kyphoscoliosis, polio, Pelvicfracture, Diabetismellitus, Knownhypertensive, Renaldisorders, Morbidobesity, all cases of molar pregnancy, Primigravida admitted for abortions are excluded. 72 of the 100 cases were unbooked pregnancies while only 28 were booked. 62% of the cases are from rural areas and 74% of the cases are from lower socioeconomic strata of the society. 43% suffered from some degree of anaemia. The incidence of antenatal complications is high. 33% had undergone emergency lower section caesarean section (LSCS) and 28% had prolonged labour. Neonatal outcomes showed that 38% of them are low birth weight (<2.5 kgs). 21% of them are preterm deliveries. It can be interpreted that teenage primigravidae had a significant number of complications in pregnancy. Sinceteenage pregnancy is a multifaceted problem it demands multidimensional solutions. Teenage pregnancies are more common in populations with low socioeconomic statuses, due to lack of education, awareness of complications of teenage pregnancies and various other factors.*

Keywords: Teenage pregnancy, Pre term delivery, Caesareansection, Tertiary referral center, un booked pregnancy

1. Introduction

Teenage Pregnancy is a burning problem in both developed as well as developing countries. Teenage pregnancy depends on a number of societal and personal factors. Data of the National Family Health Survey (NFHS) [1] revealed that 16% of women who were aged 15-19 years had already started bearing children. Early marriage sometimes means adolescent pregnancies, particularly in rural regions where the rates were much higher, that is 21.21% [2] more than they were in urbanized areas. Data of the National Family Health Survey (NFHS) [1] revealed that 16% of women who were aged 15-19 years had already started bearing children. Early marriage sometimes means adolescent pregnancies, particularly in rural regions where the rates were much higher, that is 21.21% [2] more than they were in urbanized areas. Pregnancies in teenage girls have a host of medical, obstetric, and gynaecological complications. Lack of awareness of the need for good antenatal care is responsible for many of these girls to register at a late stage and attend hospital irregularly with the result that antenatal care is often grossly deficient. In the current study we evaluated prospectively 100 teenage pregnancies to evaluate the clinical and perinatal outcomes at a tertiary referral center.

2. Material and Methods

The present study was conducted at Government General Hospital, Rangaraya Medical College, Kakinada during the period from May 2012 to April 2015. A total of 100 cases of teenage pregnancy were prospectively included in the study.

All cases with Major skeletal deformity such as kyphoscoliosis, polio, Pelvicfracture, Diabetismellitus, Knownhypertensive, Renaldisorders, Morbidobesity, All cases of molar pregnancy, Primigravida admitted for abortions are excluded.

These cases were collected from antenatal O. P. at the time of registration, those admitted in the labour room and those admitted in the antenatal ward for investigations and treatment of complications. History regarding the course of present pregnancy and its associated complications were recorded. Careful obstetric examination was done. Pelvic evaluation was done at 38 weeks by vaginal examination after prior evacuation of the bowel and bladder and advised admission a few days before the expected date of delivery.

Investigations-haemoglobin, blood group and Rh typing, urine for albumin, sugar, microscopy, random, blood sugar, VDRL, HbsAG, and HIV tests were done. The gestational age and expected date of confinement was recorded and conveyed to the women and advised to attend the antenatal clinic regularly once a month up to 28 weeks of pregnancy, every fortnightly up to 36 weeks and every week until delivery. The booked cases received a supply of iron and folic acid, calcium and multivitamin tablets and were vaccinated against tetanus. Those with complications were admitted in the hospital for investigation and treatment. All cases were closely watched during labour progress, duration, and outcome. Clinical course of labour and operative interventions was noted. The particulars of the newborn baby whether live or dead, Apgar score at one minute and five minute weight, gestational age, sex and any malformations if

present were noted. Premature babies, growth restricted babies and sick babies were referred to the paediatrician and shifted to intensive paediatric care unit if necessary.

Postnatal follow up for general condition, evidence of infection and for persistence of blood pressure in cases of PIH was noted, and breast-feeding of the new born was encouraged. An account of maternal mortality and perinatal mortality were maintained. All the patients were advised at the time of discharge to come after 6 weeks for postnatal check-up. They were also advised regarding breast feeding, birth spacing, contraception, small family norm, and immunization of the newborn.

3. Results

A total of 100 teenage pregnancies are analysed. 72 of the 100 cases were unbooked pregnancies while only 28 were booked. Demographic evaluation showed that 62% of these cases are from rural areas while the rest 38% are urban population. 74% of the cases are from lower socioeconomic strata of the society while 22% are from middle and only 4% from higher socioeconomic status. Analysis showed that 22% are illiterates and 72% had only primary education. Incidence and severity of anemia among the subjects is depicted in table 1.

Table 1: Incidence and severity of anemia

Degree of anemia	No of cases	Percentage
mild	20	20%
moderate	10	10%
severe	13	13%
Total	43	43%

The various complications during antenatal period and their incidence are shown in table 2.

Table 2: Antenatal complications

S. No	Complication	No of cases	percentage
1.	Placenta previa	4	4%
2	Preterm labour	21	21%
3.	Twins	3	3%
4.	Oligohydramnios	9	9%
5.	Postdates	18	18%
6.	Rh negative	7	7%
7.	Uterine anomalies	1	1%
8.	IUGR	4	4%
9.	CPD	16	16%
10.	Preeclampsia	18	18%
11.	Eclampsia	3	3%

91% had cephalic presentation. 65 of 100 cases had normal delivery while 35 landed up in lower section caesarean section (LSCS) surgery. 33 out of these 35 had emergency LSCS probably due to high incidence of CPD. 28 % of cases have prolonged labour may be in coordinate uterine action. Table 3 shows various intrapartum complications and their incidences.

Table 3: Intrapartum Complications

Intrapartum complications	No of cases	Percentage
Prolonged labour	28	28%
Early rupture of membranes	13	13%
Sepsis	1	1%
Cordprolapse	1	1%
Total	43	43%

Neonatal outcomes showed that 38% of them are low birth weight (<2. 5 kgs). 21% of them are preterm deliveries. Outcome of the neonates is shown in table 4.

Table 4: Outcome in neonates

Outcome	No of cases	Percentage
Live births	95	92. 2%
Inta uterine death	2	1. 9%
stillbirth	1	0. 9%
Neonatal death	5	4. 8%
Total	103	100%

4. Discussion

Teenage pregnancy is a problem in developing countries like India. Important observations were found in this study, which suggesting that most of teenage mothers hadn't had primary education itself and that a majority of the population i. e 74% of teenagers belonged to low socio-economic class and 72% of teenage mothers were unbooked. Complications such as anaemia were important factors in the present study. Studies done by Verma V [3] and Shrivage JC [4] also showed high rates of teenage mothers with anaemia as compared to those of adult mothers, as was depicted in our study also, probably because of poor nutrition in this group of women. To counter this problem, more focused national programmes like FOGSI 12 by 12, where aim is to achieve to achieve 12 gms of Hb% by the age of 12, are necessary [Table 5]. Other complications such as pre-eclampsia which are seen in teenage mothers were comparable to those seen in vital studies [Table 5].

Table 5: Review of literature showing incidence of anaemia and pre-eclampsia in teenage primigravidae

Study	Anemia (% incidence)	Preeclampsia (%incidence)
Present study	43%	21%
Verma Study [3]	35%	18. 8%
Shrivage JC Study [4]	84. 2%	37%
Pal Amitha et al. , [5]	27. 5%	15%

The incidence of preterm labour in adolescent mothers is high. This stands to the reason that her genital organs are not fully developed to accommodate a full term foetus and in addition the stress and strain of pregnancy may lead to preterm labour. Incidence of preterm labour was 21% in the present study. Studies done by Bhaduria [6], Bhattacharya [7] and Shrivage JC [4] studies showed higher incidences of preterm deliveries in teenage primigravidae. Incidence of LSCS in teenage primigravidae were higher (35% current study) i. e. almost double of the incidence that of that was seen in adults, which was comparable to those which were seen in Shrivage's study [4] and Chhabra's study [8]. Most common indication for LSCS was foetal distress, was

followed by CPD in both the groups.

This study showed a higher incidence of low birth weight babies who were born to teenage primigravidae which was consistent with those which were seen in Shrivage JCs and Kushwahas studies. The main cause of premature and Low Birth Weight (LBW) babies may be poor nutritional status, pre-eclampsia and Anaemia may be additional reason for premature and low birth weight babies. Among neonatal morbidities, incidences of birth asphyxia, RDS and neonatal hyper-bilirubinaemia were significantly more in the teenager group.

This study clearly depicted the importance of age during pregnancy. Teenage group was not scientifically and medically fit for child bearing, especially in rural population, where significant numbers of complications were seen during pregnancy, such as anaemia, preeclampsia and preterm labour, as compared to those seen in adult primigravidae, in their 20s. To prevent Teenage Pregnancy and its complications, following observations have to be advocated:

- 1) Awareness on the fact that one should not marry before the age of 18 years as per law in India.
- 2) Avoidance of pregnancies before the age of 20 years, if married, mainly due to socio-economic problems, by using contraception (OC Pills and Condoms)
- 3) Being alert, to find out early complications and to promptly take treatment
- 4) Ensuring that the women's well-being was taken care of after their deliveries, by providing proper nutrition, education, instating of family planning programmes to prevent further pregnancies (by Post partum IUCD).

The present study suggests that teenage pregnancy is a high risk pregnancy and the risk rises as age decreases. Teenage pregnancy is associated with increased antenatal complications like anaemia, preeclampsia, eclampsia, intrauterine growth restriction. Though labour was normal in majority of cases, operative intervention like caesarean and forceps are high. Perinatal mortality was high due to low birth weight babies resulting from prematurity and or IUGR. In conclusion, teenage pregnancy poses a problem to both the mother and foetus. It concerns not only the obstetrician but also the paediatrician and psychiatrist and in fact the whole family and the society. The objective should be at preventing teenage pregnancies. Despite rising the legal age of marriage, an essential step towards reducing early child bearing, until unless it is associated with a change in socio-cultural factors the burning problem of teenage pregnancy continues. The means to solve this problem are enhancing social awareness on problems of illegal pregnancies through mass education media and also by sex education not only in schools and colleges, but also in rural areas regarding contraception and prevention of sexually transmitted diseases especially AIDS. Though prevention is our goal once teenage pregnancy occurs good prenatal care and emphasis on hospital delivery can substantially reduce the mortality and complications from teenage pregnancy and child birth. Antenatal care should be regular antenatal checkups, extra care in view of high risk pregnancy, and emphasis on good nutrition, early detection and treatment of complications. The

fertility control should be part of integral approach along with education, MCH and STD prevention.

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