



THE STUDY OF OBSTETRIC OUTCOME IN TEENAGE PRIMIGRAVIDAE

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ABSTRACT

Teenage pregnancy is a fairly common occurrence in India, due to many factors such as early marriages, illiteracy, ignorance, social and religious factors. The changes in the attitude of the general population towards sex, the impact of media television, movies and literature, which are sex-oriented, are responsible for present adolescent behavior. The adolescent above the age of 15, who escapes toxemia, anaemia and premature labour seems to enjoy a relatively benign obstetric course. In conclusion, pregnant teenagers are definitely at greater risk, requiring additional efforts and resources to serve and protect their total health. They need more attention for prevention and treatment of preeclampsia, eclampsia, anaemia and last but not the least, prematurity and low birth-weight. This study deals with etiology, etipathogenesis, health education and preventive aspects of shortening mortality of teenage mothers and baby.

KEYWORDS: Teenage pregnancy, biochemistry, etipathogenesis, treatment, complication and health education.



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INTRODUCTION

Teenage Pregnancy refers to pregnancy occurring at or below 19 years of age. It includes pregnancy in the adolescent group. Adolescence is the period of life between childhood and maturity. WHO has defined adolescents as persons in the 10 – 19 years age group, while youth has been defined as the 15 – 24 – years age bracket, 'Young people' is a combination of these two overlapping groups, covering the range 10 – 24 years [1]. From June 2006, the Government of India has lowered the age of adolescence to 9 years for the purpose of adolescent education in school. The problem of teenage pregnancy is a topic of increasing concern to the obstetrician, paediatrician and other health care professionals. Teenage pregnancies are considered high risk not only because of the obstetric hazards. But also due to the physical, emotional, social, nutritional and biologic stresses of pregnancy. Among these the obstetric hazards are of importance to the obstetrician. The obstetric problems include anemias, toxemias, preterm labours, PROM, prolonged labour, CPD, Perinatal loss and increased incidence of operative delivery. These complications are due to grossly neglected prenatal care and social stigma attached to these teenage. Often illegitimate pregnancies. Health concerns have focused on the medical risks to the young mother and her infant. Teenage women have been reported at increased risk of medical complications, postnatal depression and, if married, of marital break down. Children of teenage mothers have higher risks of adverse perinatal and later, childhood outcome. With the legalization of abortions the incidence of illegal abortions with the consequence of high maternal mortality due to septic abortions and hemorrhages have reduced. However the complications remain the same in unwed mothers who mostly go in for illegal abortion. Klein [2] wrote of adolescent child bearing as initiating a "Syndrome of failure". Failure in completing one's education, failure in limiting family size, failure to establish a vocation and become independent. In India Teenage pregnancy rate varies from 8 – 14 %, India, in the late expanding phase of the demographic

cycle is faced with catastrophic dilemmas of the teenage pregnancies. In spite of tremendous development in all fields, our people are adhering to age – old tradition and culture, which does not allow reducing teenage marriage and pregnancy in our country. Social attitudes and customs dictate a universality of early marriages[3]. Early marriage is a long established custom in India. Due to early marriage and child bearing, the girl loses out on her education; thus does not have the choice to negotiate in safe sex and child bearing. As early as in 1929 the Sharda Act was enacted forbidding the practice of child marriage. In 1951 and average age for marriage was 13 years. However, there is a gradual rise in age at marriage in the country. Child Marriage Act of 1978 rises in age at marriage from 15 to 18 years of girls from 18 to 21 years for boys (Park & Park 1990). In spite of this the customary age for marriage in India is < 16 yrs, which result in a large no. of teenage pregnancies. Many adolescent boys and girls are sexually active and lack information and skill in self – protection of family planning as well as contraceptive use. They have simple but widely pervading crucial reproductive health needs, communication gap exists with parents and other adults because of the sheer number. Unwanted pregnancies would appear to require either reduced exposure to risk (that is, sexual intercourse) or effective contraceptive use. Teenage pregnancy has been viewed with increasing concern in recent years, in the United Kingdom. The issue became a public health priority through incorporation of targets for reducing in the "Health of the Nation" strategy.

MATERIALS AND METHODS

- This study was undertaken with 100 patients between age group 13 – 19 yrs. Coming to OPD and the department of OBG in medical college teaching hospital.
- They were subjected to routine investigations like:
 - CBC
 - Hb%

- Blood Grouping (Rh & ABO)
- RBS
- CUE
- VDRL
- HbS Ag
- HIV
- They were to subjected to general examination, per abdomen examination, per vaginal examination, routine ultrasonography and repeat ultrasonography was done regards the biophysical profile, to rule out congenital anomalies, placental maturity, amniotic fluid index, and complications if any.
- Patients were also subjected to other tests when necessary, depending on the complications such as:
 - Serum Creatinine
 - Serum Uric Acid
 - Blood Urea
 - Urine Culture and Sensitivity
 - Screening Test for Diabetes
 - Fundoscopy
- They were followed until delivery to know the fetal outcome along with maternal health status.
- Teenage women presenting with anaemia during pregnancy will be managed along the lines of severity of the anaemia and their period of gestation.
- Patients presenting with pregnancy-induced hypertension (PIH) will be managed according to individual needs and will be provided with bed rest, sedation and antihypertensives.
- Patients presenting with preterm labour will be admitted and managed by provision of bed rest, tocolytics and corticosteroids till 34 weeks of gestation. Once the condition is settled, patients will be discharged to their homes with specific advice to come for regular check ups.
- Once the patients goes into labour, the case will be reviewed with the help of NST and pelvis will be reassessed. The course of labour will be monitored according to

Friedmans partograph. The progress of labour will be, assessed periodically by abdominal and vaginal examinations in which the following parameters will be noted.

- General condition of the patient: hydration, pulse, blood pressure, respiration and temperature.
- Uterine activity.
- Station & Descent of the fetal head.
- Fetal heart rate
- Cervical effacement and dilation
- Colour of the liquor
- Evidence of any caput or moulding
- Bishops score will be analysed. Instrumental or Caesarean Section is proposed to be performed whenever indicated. Episiotomy is performed. The neonatologist will assess each baby soon after the delivery. Apgar score will be recorded at one minute and five minutes.
- After delivery of the baby, signs of placental separation will be observed and placenta will be delivered by Brandt-Andrews technique. Injection Methergine will be given after the delivery of placenta unless contraindicated. Any complications will be treated aggressively. Both mother and baby will be observed in the postnatal period for any complications. Women will be educated about contraceptives and the importance of spacing.
- The observations will be computed and compared to evaluate the problems associated with labour in teenage pregnancies.

EXCLUSION CRITERIA

- Any pregnancy > 19 years of age.
- Multi gravid teenage pregnancies.

INCLUSION CRITERIA

- Cases collected will be between 13 – 19 years of age.
- Teenage primigravide both married and unmarried.

RESULTS

Table I
Age Distribution

Age (13 – 19) Yrs	Number (n=100)	Percentage
13	--	--
14	--	--
15	1	1%
16	2	2%
17	9	9%
18	39	39%
19	49	49%

Table I shows majority of teenage pregnancies belong to teenagers of 19 years (49%); closely followed by teenagers of 18 years (39%).

Table II
Marital Status

Married	96	96%
Unmarried	4	4%

Regarding the marital status of the patients, 96% were married and 4% of patients were unmarried as shown in this table.

Table III
Geographical Distribution

	No. of Cases	Percentage
Rural	80	80%
Urban	20	20%

In the study group, majority of the patients (80%) belong to the rural population. The area where the study was conducted belongs to the rural and backward class.

Table IV
Socioeconomic Status

	No. of Cases (n=200)	Percentage
Low	75	75%
Middle	25	25%

Majority of the patients (75%) belong to low socioeconomic status and 25% of the patients belong to the middle class. Thus, our patients are deprived health wise as they fall short economically, socially and psychologically. As a result, they cannot afford the medications indicated by doctors.

Table V
Literacy

	No. of Cases	Percentage
Illiterate	88	88%
Literate	12	12%

It is observed that 88% of the patients are illiterate. These patients are in need of Health Education & Awareness Programme.

Table VI
Antenatal Care Availed by the Teenagers

	No. of Cases	Percentage
Booked	44	44%
Unbooked	56	56%

The majority of cases were unbooked (56%) whereas the no. of booked cases were 44%. The booked cases were irregular in attending the Antenatal Clinic.

Table VII
Complications of Teenage Pregnancy

S. No.	Complications	No. of Cases n=100	Percentage
1	CPD	14	14%
2	ANAEMIA	39	39%
3	PIH	17	17%
4	PRETERM LABOUR	18	18%
5	HEART DISEASE	8	8%
6	POST DATED	5	5%
7	PROM	3	3%
8	APH	2	2%
9	ABORTIONS	7	7%
10	ABNORMAL PRESENTATION	4	4%
11	OLIGOHYDRAMNIOS	7	7%
12	FETAL DISTRESS	18	18%
13	IUGR	3	3%
14	IUD	1	1%
15	STILL BIRTH (PERINATAL DEATH	6	6%
16	CONGENITAL ANOMALY	2	2%
17	JAUNDICE	1	1%
18	PPH	2	2%

Table VIII
Anemia in Teenagers

Total No. of Anemia Cases = 39

	No. of Cases	Percentage
Mild (8.1 – 10)	24	61.5%
Moderate (7 – 8)	9	23.07%
Sever (<7)	6	15.3%

Out of 39 cases of anaemia, 9(23.07%) were moderate anaemia and 66(15.3%) were severe anaemia, which could be corrected by parenteral iron (Intramuscular route) alternatively Packed Cell Transfusion.

Table IX
Toxaemia of Pregnancy in Teenagers

Total No. of PIH Cases = 17

Mild	8	47.05%
Severe	4	23.5%
Eclampsia	5	29.4%

Total no. of PIH cases as observed was 17. Out of total cases 8(47.05%) were suffering with mild PIH.5 (29.04%) of the 18 cases had convulsions (eclampsia).

Table X
Preterm Labour

Age	Present	Absent
13 – 16 yrs	1 (3 cases)	2
17 – 19 yrs	17 (97 cases)	80
Total	18 (100 cases)	82

Incidence of preterm labour below 16 yrs was found to be 33.3%.

Table XI
Mode of Delivery

Obstetric Outcome	Number	Percentage
Abortion	7	7%
Spontaneous Vaginal Delivery	32	32%
Outlet Forceps	5	5%
LSCS	56	56%

- 56 teenagers have undergone LSCS and 5 by forceps delivery, and 32 teenage pregnancies had spontaneous vaginal delivery.
- It can be observed that Caesarean section constituted 56% of the study.

Table XII
Duration of labour

Duration in hours	No. of Cases	&
< 12 hrs	30	81.08%
12 – 24 hrs	5	13.5%
> 24 hrs	2	5.4%

Majority of cases were delivered within 12 hrs.

Table XIII
Neonatal Outcome in relation to birth weight

Weight in Kg.s	No. of babies	%
< 1.5 Kg	2	2%
1.5 – 2.5 Kg	30	30%
2.5 – 3.5 Kg	57	57%
> 3.5 Kg	1	1%

Out of the 100 cases:

- *Abortion : 7*
- *IUFD : 2*
- *Still Birth : 1*

The majority of babies (57) were within the weight range of 2.5 – 3.5 Kg.

Table XIV
Apgar score at 1 min and 5 min

Apgar Score	1 Min.		5 Min.	
	No. of Cases	Percentage	No. of Cases	Percentage
8 – 10	49	49%	79	79%
4 – 7	38	38%	7	7%
< 3	2	2%	3	3%
Total	89	89%	89	89%

It was observed that the majority of the babies had an apgar score of 8 – 10.

Table XV
Fetal Outcome

Total live births	90	90%
Still born	1	1%
Perinatal death	6	6%
IUD	1	1%
Congenital anomalies	2	2%

7% of babies had still births including perinatal deaths. 2% of congenital anomalies were recorded.

Table XVI
NICU admission

	No. of Cases	%
(90 cases)		
No admission	68	75.5%
Admission to NICU	22	24.4%

24.4% of babies had NICU admissions.

Table XVI
Perinatal mortality

Infections (Sepsis)	1	1%
Birth asphyxia & trauma	1	1%
Preterm birth / Low birth weight	4	4%
Cong. Malformations & others	2	2%

Majority of perinatal mortality is due to prematurity and low birth weight.

Table XVII
Abortions

Abortions	Married	Unmarried
Spontaneous	2	-
Missed	1	-
Induced (MTP's)	-	4

4% of MTP's are done in unmarried primi gravidae.

DISCUSSION

Pregnancy in adolescence

Early child bearing has attracted a great deal of interest from every segment of society. It has been estimated that one in ten American girls 15 to 19 years of age becomes pregnant and that 95% of them are unintended (Centre of Disease Control 1995). After rising 23% between 1972 and 1990, Pregnancies among the girls between 15 to 19 years have declined to 17% between 1990 and 1996. The teen birth rate dropped by 20% between 1991 and 1999, approximately 50% per 1000 women. This decrease most likely is due to the increased availability of contraception and abortion rather than a decrease in sexual activity.

Incidence of teenage pregnancy

Kedar P. et al [4]	10.9%
Anita Pal et al [5]	3.2%
Kale K M et al [6]	6.4%
Shobhana Patted et al [7]	5.33%
Present Study	3.82%

The incidence of teenage Primigravidae in the study was found to be 3.82%. A total of 2616 women delivered in this time period out of which 550 women were Primigravidae. Out of these cases, 100 teenage Primigravidae were studied and analysed. Incidence shows marked variation in between developed and developing countries. Social attitudes and customs dictate universalities of early marriage (60% between 15 to 19 years of age). National statistics show that 7% teenage girls give birth in a year in India. Incidence in our study is comparable to or slightly lower than the studies by other authors. There are over 13 million married women under the age of 18. There has been a decline in the number of child marriage but adolescents are still marrying at almost a higher rate. In absolute terms, there were 3.3 millions of adolescent mothers in 1988. This means that the number of adolescent mothers has increased by 50% during the last 30 years and is likely to increase further due to population momentum. Rapid changes in obstetric and family planning services that have emerged in since 1960s and liberalization of abortion laws have

placed the present teenagers in a privileged position. Adolescent girls are more susceptible to sexually transmitted infections. HIV in female adolescents is more likely to be recent infection and have high viral load (WHO, joint UN Program HIV / AIDS, HIV in pregnancy, a review Genera, 1999). The adverse fetal and maternal outcome in teenage pregnancies reported in some of the studies are more likely to factors like low socio-economic and educational status, no or poor quality of antenatal care availed, absence of family support and presence of problem behaviour like drug or alcohol abuse. The maternal and fetal outcome is not found to be adverse especially in the 'mature teenagers' if proper medical care is given. In very young teenagers, below 15 years of age, however the obstetrical complications are higher than in the general obstetrical population. As regards the marital status of our patients in the study group 96% were married between 13 – 19 years of age, 4% were unmarried. Sexual attitude and behaviour of teenagers, sexual attitude and values have drastically changed over the decades. As already observed, may

be due to change in biological maturation taking over the past years. Sex is a means by which teenagers explore their bodies and emotions. It can be viewed as expression of independence in teenagers. Klein (1978) wrote of teenage child bearing is a syndrome of failure to complete education or limit family size outcome of teenagers pregnancy. The principal consequences of adolescent pregnancy are abortions, forced marriages, undeserved motherhood, adoption and

emotional problems that can lead to depression and suicide.

Distribution of Age

In the present study, we had only 3% of teenagers below 16 years of age. The youngest girl was of 15 years old. 97% of the teenagers were between 17-19 years of age. In a study done by Kedar Padte et al (1989), they observed that 18.18% were in group 1 (13-16 years of age) and 81.8% were in Group II (17-19 years of age).

Study Group	Cases (%)	
	13-16 years	17-19 years
Kedar et al [4]	18.18%	81.82%
Present Study	3%	97%

In our country early marriages are very common especially in rural swellings and pregnancy is considered as most welcome event of life. The only remedy for this existing problem is social upliftment and health education. Delaying the onset of child bearing beyond 20 years of age should be an important element of population control programmes.

healthy attitudes towards sexuality and child bearing.

Socio – economic Status

In the present study, 75% of the women are from low socio-economic status. This is responsible for increased incidence of anaemias, toxaeimias, and low birth weight in the study group.

Geographical Distribution

In the present study, 80% of our teenagers are from the rural area and 20% were from the urban area. Preponderance of cases from rural area as speaks of relevance of social health factors and interaction with reproductive health care system. Prevention should be our goal and our educational programmes should reach the villages early prior to the teenagers years, aimed at hoping

Literacy

In the present study, 88% of the women are illiterate

Antenatal care

In our care, it was seen that majority of teenagers who came for the delivery were unbooked cases (56%) and 44% were booked cases but irregular in attending antenatal care

.Study Group	Antenatal Cases	
	13-16 years	17-19 years
Kale KM et al [6]	34.7%	65.3%
Present Study	44%	56%

Majority of the patients were from very low socio-economic status were uneducated and ignorant. They were unaware of the risk involved in the pregnancy at such an early stage. And many could not reach the doctors often due to financial and transport difficulties for antenatal checkups and they have an idea that they need to visit a doctor only with a problem. Hence, these teenage mothers have

landed up with a high incidence of labour complications and puerperal complications.

**Complications of Teenage Pregnancy
Anaemia**

39% of the teenagers were found to be anaemic in our study. Mild anaemia was found in 61.5% of the cases. 23.07% were moderately anaemic and 15.3% of the teenagers were severely anaemia.

Kale K M et al [6]	31.7%
Present Study	39%

The incidence of anaemia was found to be 39% in the present study. The cause is mainly the nutritional status of the mother. Most of the teenagers were unaware of the food habits. Adolescence itself is a period of rapid growth and therefore adolescent girl has increased nutritional needs for herself alone and pregnancy as such needs increased nutrition demands for the fetal growth adding nutritional stress upon the teenage girl leading to anaemia. We can conclude that the contributing and the causative factors could be the growth period of teenage mothers, wherein pregnancy is super added along diet

and inadequate parenteral care. Good antenatal care is needed by the teenage mothers; as well as advice of adequate nutritional intake and history should be taken carefully and previous disorders elicited and treated. Every attempt should be made to correct the Hb levels in all pregnant patients.

Toxaemia of Pregnancy in Teenagers

In our study, we recorded an incidence of 17%, 47.05% had mild PIH, 23.5% had severe PIH and the incidence of eclampsia in teenagers was found to be 29.4%.

Study Group	Incidence	
	PET	Eclampsia
Sushma Bhaduria [8]	23.7%	8.7%
Patnaik, Das, et al [9]	15.7%	5.225
Kale KM et al [6]	6.6%	3.2%
Present Study	23.5%	29.4%

Pre-term labour

In our study, we had 18% incidence of preterm labour, i.e. 18% of the teenagers delivered before 37 weeks, preterm labour was found to be high (33.3%) below 16 years of age.

Study Group	% of Cases
Sarkar et al [10]	20.1%
Chahabra et al [11]	14.0%
Present Study	18%

According to Buitendisk SE et al (1993) teenagers run 1½ times as a high risk of having a preterm delivery. In the analysis of preterm deliveries, the most important cause was found to be toxaemia, which accounted for 17%. The etiology of preterm labour remains obscure, low socio-economic class, poor economic conditions, inadequate – prenatal care, anaemia, and toxaemia in pregnancy, and others may be partly responsible.

Labour in Teenagers

Some teenagers come to the Hospital in 2nd stage of labour, when the reason for such delay was enquired, lacks of transport facilities and moreover, the women are brought to the hospital only after a trial by TBA after Dias. Most of them are from the villagers. Some women come in 1st Stage of labour and only a few came in when the patients were not in labour. 5 patients were eclamptic and 4

patients were with severe PIH. In our study, out of 100 women only 32% women delivered normally by vaginal delivery and 56% needed LSCS and 5% cases needed outlet forceps applications. Labour presented with no problems in the adolescent mothers. Duration of labour was found to be shorter. Similar observations were also reported by Vimal Kacchaw et al (1979), S. Pawar et al (1985), Tapas and GOswami[16]. The most likely reason for short duration of labour could be their young age itself, adequacy of the pelvis to their babies, which are possibility of coordinated uterine action. As the pelvic bones tend to fuse at puberty, little or no change in the size or shape of the pelvis can occur after the menarche. The improving standard of living during the past two decades has also meant earliest maturity. 56% of the study group underwent LSCS. 32% had spontaneous vaginal delivery and 5% had instrumental delivery with outlet forceps.

Study Group	Spontaneous Vaginal	LSCS	Forceps
Kale KM [6]	77.9%	13.6%	8.2%
MN Pal et al [13]	87.9%	3.6%	5.58%
Shobhana et al [7]	57.0%	31%	11.25%
M.S. Chanade & Suresh Ughade et al [12]	-	27.3%	-
Present Study	32%	56%	5%

5% of the teenagers needed instrumental delivery in our study, which can be compared with the study done by Mudhuri et al (1990) who recorded 5.58% incidence of forceps delivery. These rates of instrumental delivery may be due to fact they adolescent girls are not psychologically mature enough for reproduction. Prophylactic forceps was applied for teenagers with toxemia during pregnancy and fetal distress. Being her 1st experience of labour and delivery, the

teenage mother is unaware of what is expected of her. By the time 2nd stage is reached, she is too exhausted to bear down effectively. Hence, the incidence of instrumental delivery for prolonged 2nd stage.

Incidence of LSCS

In our study, the incidence of LSCS in teenagers was found to be 56%. Comparable to the study done by Shobhana et al (1990) who recorded an incidence of 31%

Study Group	Incidence of LSCS in teenagers
Madhuri et al [14]	3.6%
Shobhana et al [7]	31.01%
M.S. Chanade & Suresh Ughade et al [12]	27.3%
Present Study	56%

In the study done by Kale KM et al and Madhuri et al, 95% of the teenage girls were between 17-19 years this explains the reasons for the decrease in the incidence of LSCS in their study.

Cesarean Section

In the present study, Cesarean section rate constitutes 56%. The probable reason of such high incidence can be attributed to the following conditions. The various indication for caesarean section were CPD, malpresentations, foetal distress, IUGR, PROM, deep transverse arrest, imminent eclampsia, obstructed labour, accidental hemorrhage, placenta praevia, post datism, eclampsia.

Cephalo – pelvic disproportion

In our study the incidence of CPD in teenagers was 14%, CPD was found to be the

commonest indication for LSCS in teenagers between 17-19 years. Foetal distress was seen in 18% cases which contributed to LSCS. Malpresentations was found in 4% of teenagers. Low incidence of CPD among teenagers could be due to increased incidence of preterm deliveries and low birth weight babies among teenagers. CPD was reported in 10.03% (Pawar S), 23.19% (Madhuri 1989) and Shushma et al 1991 to be 7.25%. The prepubertal pelvis is contracted from obstetric point of view. The younger patients experiencing shorter growth periods, before conception, therefore would exhibit greater proportion of contracted pelvis.

Study Group	CPD
Pawar S Aparna et al [15]	10.3%
Madhuri et al [14]	23.1%
M.S. Chanade & Suresh Ughade et al [12]	33.3%
Present Study	14%

The younger the patient, the greater the proportion of pelvic disproportion (Contracted pelvis). Nikoe et al (1989) observed that pelvic architecture is not at completely formed and mature enough for term delivery. Considerable confusion exists as to how much of these

problems are attributed to age as apposed to the availability and utilization of services, race, socio economic status, and general health.

Post dated Pregnancy

The teenage group of primi gravida are more prone for Preterm labour than post dated pregnancy. Incidence in our study group is 5%.

Abnormal Presentation

Madhuri TN et al (1989) reported 3.04 cases; Kale KM et al (1996) had only 1.7% cases of abnormal presentation. In our study, we had 4% cases of malpresentation. This could be because of under developed pelvis, prematurity, congenital anomalies.

Neonatal Outcome

The burden of younger mother hood falls most heavily on the offspring of these mothers because of mental immaturity and physiologically maturity to look after the newborn. Increased foetal wastage, infant morbidity and infant death are the greatest medical risk associated with teenagers pregnancy. 35% of babies weighed less than 2.5Kgs. in our study. Most of these patients came from rural areas and had inadequate antenatal checkups and also due to poverty, under nutrition, PIH and anemia.

Study Group	Percentage of Birth Weight Less than 2.5 Kgs.
Mirchandani [17]	34%
Pawar S et al [15]	33.5%
Present Study	35%

It is not clear whether the smallness of infants of young mothers is a result of biologic process or late entry into prenatal care. It is possible that the uterine vasculature is less well developed in these young mothers. Majority of the babies (79%) had apgar score of 8.10 at 1 minute of birth and some babies improved to apgar 8.10 at the end of 5 minute. 4 babies were still born. Apgar score was 0 to 1 minute and 5 minutes. Congenital anomalies were seen in 2% of the cases. One baby with hydrocephalus, 1 baby with congenital rubella

syndrome was reported in our study. Researchers found and increased incidence of malformations in babies to mothers under 20 years of age and saw the possibility of more anomalies in reproduction immediately after puberty. The common congenital anomalies found were neural tube defects, hydrocephalus, talipes equinovarus, and cleft lip. Obeng (1969) noted that congenital anomalies are 3 times more frequent in younger group (3.3%) than the control group (1%).

Study Group	Incidence of Congenital Anomalies
Goswami et al[16]	0.15%
Madhuri TN et al[14]	0.24%
Present Study	2%

Increased perinatal mortality in teenage groups is the result of neglect of antenatal and intranatal care and prematurity. Hassan & Falls found that the rate of perinatal loss in patients with adequate care was 10% lower in women with good antenatal care.

Abortion

Teenagers account for 15-20% of abortions in most western countries. In India although abortion was legalized in 1972, septic abortion still accounts for 10% of maternal death due to lack of non-utilisation of facilities in peripheral areas. This may be due to the fact that these adolescents resort to unskilled persons to perform it and use dangerous methods and present late when complications arise. Incidence of abortion in our study group is 7%. Spontaneous abortions were less and there

were 4 MTP's in unmarried women. They were terminated mostly by medical methods. High foetal losses in the group of less than 20 more than 40 were reported by Roy Chowdhury and Sikander [18] in a study of perinatal mortality of 17,431 births. Major concerns were future fertility, pregnancy wastage and prematurity rate.

Maternal Morbidity and Mortality

Maternal morbidity was seen in teenagers. PPH was seen in 2% of the women. We had 1

case of atonic PPH, 1 traumatic PPH. Cases with traumatic PPH and cervical tears were seen. This may be because of increased need for instrumental delivery in teenagers. There was no maternal mortality noted in our study. Gahlot et al reported increasing frequency of puerperal complications with increasing age. Pawar S and Shrotri (1987) reported low incidence of puerperal complications. Good prenatal care can substantially reduce mortality and complications from pregnancy and childbirth. The teenage pregnancy is a sociological problem with medical consequences and the medical programs as they presently exist are incapable of bringing about the ultimate solution and prevention. Much of the effort to combat this problem is expended on obstetric, Neonatal and contraceptive program. These are remedial of adolescent pregnancy our major priority. The minimum age of marriage for girls was amended by the Government of India as 18 years in 1978. Even then the problem of teenage pregnancy is very much existing, as child marriages are still prevalent in India rural communities the obvious need of the day is to implement the legal age of marriage and fertility regulation services in the community by causing enclosed awareness among the rural population. Adequate prenatal care and community education seen invaluable to teenage mothers with biological and psychosexual immaturity burdened with poor socio –economic status, illiteracy and malnutrition. The teenage pregnant mother deserves a higher priority for comprehensive services that have existed. They must have an institutional delivery under specialist supervision. Every teenage mother should be given contraceptive advice after delivery and adequate follow to prevent further unplanned pregnancies.

Perinatal Morbidity and mortality

There were 6 perinatal deaths and 1 still born in our study. Most of the perinatal deaths were due to preterm/low birth weight babies. Other causes of perinatal mortality being infections (Septicaemia), birth asphyxia, trauma, congenital Malformations. Perinatal morbidity due to birth asphyxia, hyaline membrane disease, low birth weight and IUGR babies

were admitted in NICU for further management.

Emotional problem in the pregnant teenager

Of course society plays a dominant role in emotional status of pregnant teenager. The decision to carry out pregnancy till term is influenced by her social circumstance. A married teenager with a fairly stable financial background will view her pregnancy with a little more maturity and ready to undergo necessary care for pregnancy and confinement. An unmarried teenager is definitely under stress and conflicts. In our country the parents are rarely supportive to their pregnant unmarried daughter and exert strong pressure for abortion. The pregnant teenager goes through a phase of emotions, pleasure, fear, anger, depression, and guilt. Her reaction depends on her present circumstances and previous emotional health.

Management: [19-22]

Prevention of teenage pregnancy unintended pregnancies currently lead to approximately 1.5 million abortions in United States annually, a ratio of about one abortion to three live births. Hence, to educate public about social and public health burdens of unintended pregnancy:

1. It is not easy for the government and local public services to influence young people's decision about their sexual behaviour.

Such activities should revolve around

- a. Improving knowledge about contraception unintended pregnancy & reproductive health.
- b. Increasing access to contraception.
- c. Intervening in teenage sexual behaviour, intervention to prevent unwanted pregnancy by emergency contraception.
- d. Sex education and abstinence is seen as one of the most important processes in reducing teenage pregnancy.

In many parts of the developing world especially in rural areas, girls are married off shortly after puberty and sometimes even before. There is often considerable pressure on the young married women to bear children

immediately. Though raising legal age of marriage is an essential step towards reducing teen-age pregnancy. Legal action of reducing the age of marriage has very little effect unless social & cultural factors put such high value on early fertility need to be addressed. Obvious need of the day would be to increase social awareness through media both electronic & print media and sex education in schools, college, & rural areas.

Prenatal

1. Encouragement for early referral for prenatal care.
2. Gestation to be confirmed yearly.

3. Stress advice about diet. Adverse habits like smoking.
4. To mobilize social support.
5. Extra advice and education about pregnancy and child bearing.

Labour & Delivery

1. To ensure adequate psychological support.
2. Delivery in a special unit if dystocia is an anticipated problem.

Postnatal

1. Advice and support for infant feeding care.
2. General social & financial support if secondary education to be continuous.
3. Discussion about contraception.

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