

An Observational Study Regarding Perinatal and Maternal Morbidity and Obstetrical behavior in Relation to Teen Age PregnancyRekha Kumari¹, Sadhana Kumari², Usha Kumari³¹Senior Resident, Department of Obstetrics and Gynaecology, NMCH, Patna²Senior Resident, Department of Obstetrics and Gynaecology, NMCH, Patna³Professor, Department of Obstetrics and Gynaecology, NMCH, Patna

Received: 27-09-2023 / Revised: 23-10-2023 / Accepted: 27-11-2023

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Conflict of interest: Nil

Abstract:

Background and Objectives: Teenage pregnancy which is detrimental to health of mother and child, is a common public health problem worldwide especially in third world. It is a problem that affects nearly every society-developed or developing alike. It is one of the key issues concerning reproductive health of women not only in developing but also in developed countries. The obstetrical behaviour of teenage pregnancies was observed in relation to presentation, mode of delivery duration of labour and foetal outcome and its complication and many other abnormality.

Material and Methods: The present study was carried out in the Obstetrics and Gynaecology Department of Nalanda medical college and Hospital Patna Bihar. One hundred and twenty teenage pregnant women in the age group of 13 to 19 years were included in the series. The period of gestation was after the age of viability of foetus i.e. 28 weeks.

Conclusion: Now on the basis of the above facts and figures it can very well be conclude that teenage pregnancy comes under high risk group. The importance of good prenatal care for the young primigravida cannot be overruled. The incidence of pre-eclampsia, eclampsia and prematurity was found to be higher in the teenagers.

Keywords: APH, ARM, PET, PPH.

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Introduction

Teenage pregnancy which is detrimental to health of mother and child, is a common public health problem worldwide especially in third world. It is a problem that affects nearly every society-developed or developing alike [1]. It is one of the key issues concerning reproductive health of women not only in developing but also in developed countries. There is growing awareness that early child bearing has multiple consequences in terms of maternal health, child health and overall wellbeing of society [2]. Teenage pregnancy is very common in India as over 70% of females between the ages of 15 to 20 years are married (Silber, 1980). In 2006, there were almost a half million birth to women aged 15 to 19 years (centre of disease control and prevention 2009). National rate was 42 per 1000 female aged 15 to 19 years. Although this rate is substantively reduced compared with 77/1000 in 1990, measures to lower it further should remain top priority (Williams obstetrics 23rd edition). Despite the amendment for minimum age of marriage for girls as 18 years by the government of India in 1978, it is the big problem and ignorance about effective use of contraceptives also compounds the problem

[3]. However, over recent past decade, India has successfully reduced the proportion of pregnancy between 15-19 years to half (16% during NFHS 3 in 2005-06 and 7.9% during NFHS4 in 2015-16). Still, estimation by UNFPA runs to 11.8 million teenage pregnancy for the country. The teenage period covers the age of 10-19 years. This is a period of transition from childhood to adulthood. Adolescence is a distinct and important biological and social stage of development. Pregnancy in a girl aged between 10-19 years is adolescent or teenage pregnancy. Teenage pregnancy continue to be a complex and challenging issue for families, health workers, educationists, societies and governments, and for adolescents themselves. It is one of the important factors for rapid population growth in the world especially third world [4].

Although there is decline in teen birth rate in the west, teenage pregnancy remains a significant problem worldwide. In 2006, according to centres for disease control and prevention as reported by Ventura (2009), Texas ranked number one with 63 birth per 1000 females aged 15 to 19 years. Other western nations with similar level of adolescent

sexual activity have much lower rates of adolescent pregnancy than the US [5]. In countries with more open and nonjudgemental attitudes towards sex, teen gets more consistent messages, clearer information and greater access and acceptance of contraception and abortion. Average age of 1st debut in sexual activity has decreased to 17 years for girls and 16 years for boys. Younger teenagers are especially vulnerable to rape/incest or other sexual abuse. 50% of adolescent pregnancies occur within 6 months of starting of sexual activity. A sexually active teenager who does not use contraception has a 90% chances of pregnancy within one year [6]. Infant mortality data indicate that of first babies born to women under 15 years of age, about 6% die in their first year, a rate 24 times higher than for older women. Early marriage and early first pregnancy are a part of social customs and region of North Bihar where Nalanda Medical College is situated. The present study has been carried out on 120 teenagers between age of 13 to 19 years admitted in department of Obstetrics and Gynaecology in Nalanda Medical College and Hospital, Patna in the 3rd trimester of pregnancy form “June 2018 to November 2019”. The obstetrical behaviour was studied and maternal and perinatal morbidity recorded. The conclusion drawn will help to improve not only antenatal, intranatal and postnatal are, but also overall health and nutritional status, education and emotional stability of teenagers [7]. This will ultimately translate into reduction in maternal and fetal morbidity and mortality in teenage pregnancies [8].

Material and Methods

The present study was carried out in the Obstetrics and Gynaecology Department of Nalanda Medical College and Hospital, Patna Bihar. One hundred and twenty teenage pregnant women in the age group of 13 to 19 years were included in the series. The period of gestation was after the age of viability of foetus i.e. 28 weeks. Study Time Period is July 2022 To June 2023

1. Registration number and date of admission.
2. Name and address.
3. Age of patient in year.
4. Occupation.

Table 1: Distribution of cases according to incidence of teenage pregnancy.

No. of deliveries	Number	Percentage
Total No. of delivery	2,985	
Total No. of teenage delivery	120	5.78

The above table shows the incidence of teenage pregnancy. In this series incidence of teenage pregnancy is 5.78 percent.

Table 2: Distribution of cases according to age in teenage pregnancy.

Age	Number	Percentage
Below 13 years	0	0
14 years	1	0.84
15 years	4	3.33
16 years	11	9.16

5. Religion
6. Marital status
7. Socio-economic status

Educational status (Illiterate, literates, matric

1. Obstetrical History :
 - a. Gravida
 - b. Parity
 - c. Number of previous alive child
 - d. Number of previous still birth
 - e. Number of previous abortion
 - f. Age of last child
 - g. Mode of delivery – Vaginal/caesarean
2. Drug history
3. Family history of multiple pregnancy, diabetes, tuberculosis, syphilis, Hypertension etc.
4. Present History :
 - a. Excessive vomiting
 - b. Bleeding per vaginum in early and mid-pregnancy.
 - c. Any systemic disease during pregnancy
 - d. History of toxemia of pregnancy
 - e. Any obstetrical manoeuvre employed during antenatal check-up.

Outlet contraction was diagnosed on the accommodation of less than four knuckles at the transverse diameter of the outlet and if the subpubic angle was narrow (further assessment was done in suspected cases).

1. Mode of delivery
2. Outcome regarding mother and baby

The type of labour whether spontaneous onset or induced and type of delivery whether spontaneous vaginal, caesarean section or forceps or ventouse application. Nature of placental delivery were also noted.

Results

The Present study was carried out in 120 teenage pregnant women between 13 to 19 years of age out of total of 2,985 deliveries. The obstetrical behaviour of teenage pregnancies was observed in relation to presentation, mode of delivery duration of labour and foetal outcome and its complication and many other abnormalities.

17 years	17	14.17
18 years	50	41.67
19 years	37	30.83
Total :	120	100

Above table shows the age group of teenage pregnant women. In this series it was observed that the maximum incidence of teenage pregnancy was in 18 to 19 years giving incidence of 41.67 percent and 30.83 percent respectively and there was no pregnancy in 13 years age group in our study group.

Table 3: Distribution of cases according to marital status in teenage pregnancy.

Marital status	Number	Percentage
Married	118	98.33
Unmarried	2	1.67
Total :	120	100

It was observed that 98.33 percent cases were married. There was 1.67 percent in unmarried group.

Table 4: Distribution of cases according to Haemoglobin in Gram percentage in teenage pregnancy.

Hb in gm%	Number	Percentage
Above 11	38	31.67
11.0 to 8.5	77	64.17
8.4 to 6	5	4.16
Less than 6	0	0
Total :	120	100

It was observed that Hb% above 11.0 gm% was 31.67 percent, 11.0 to 8.5 gm percent was 64.17 percent and from 8.4 to 6 gm percent was 4.16 percent. There was no case of severe anaemia. Highest percentage had Hb 8.5 to 11 gm%.

Table 5: Distribution of cases according to complications of 3rd stage of labour in teenage pregnancy.

Complications	Number	Percentage
Cervical tear	2	1.66
Retained placenta	0	0
PPH	2	1.66
Total :	4	3.32

It was observed that complication of 3rd stage of labour was very low. 2 cases had PPH and 2 had retained placenta, incidence was 1.66 percent in both.

Table 6: Distribution of cases according to foetal mortality in teenage pregnancy.

No. of Stillbirth	No. of early Neonatal death	No. of Perinatal death
No. of infants	9	7
Percentage`	7.5	5.83
		13.33

It was observed that the incidence of stillbirth was 7.5 percent and early neonatal death was 5.83 percent so incidence of perinatal death was 13.33 percent.

Table 7: Distribution of cases according to maternal mortality in teenage pregnancy.

Causes of maternal mortality	Number	Percentage
Eclampsia	3	2.5
Jaundice	1	0.84
(Infective Hepatitis)		
Total :	4	3.34

The above table shows maternal death in teenage pregnancy, 3 death was due to eclampsia and one was due to jaundice (infective hepatitis).

Discussion

The study of obstetrical behaviour of teenage pregnancy with reference to the duration of gestation, time of onset and progress of labour and foetal outcome and its complications have been the subject of discussion over the recent years⁹. Teenage

pregnancy is a common occurrence in a developing country like India and it belongs to the group of high-risk pregnancy and pose special problems. Due to divergent observations reported by different workers it is worthwhile to carry out a prospective study on obstetrical behaviour of teenage pregnancy. The obstetrical behaviour in teenage pregnancy is expected to be naturally different because of the biologic immaturity of the adolescent, the body is ill prepared to sustain the load of pregnancy and

provide a safe delivery for the infant. The present study was undertaken to ascertain the different risk factors in teenage pregnancy. This study was carried out in one hundred twenty (120) teenage pregnant women out of a total of two thousand and nine hundred eight five (2,985) deliveries over a period of twelve months [10].

In the present study the incidence of teenage pregnancy (Table - I) was 5.78 % out of a total of 2,985 deliveries over a period of 12 months. This incidence is similar to that of Marchetti and Menakar (1950), 6.3 %, Pachuri and Jamshedji (1983) 5.1 %, Bhattacharya A. et al (1985) 8.4 %, Pal M.N. et al (1990) 7.6 % whereas some other authors have found lower and higher incidence of teenage pregnancy e.g. Posner and Pulver (1935) 0.53 %, Poliakov (1958) 1.85 %, Clough (1958) 1.5 %, Bochner (1962) 4 %, while Kachhawa et al (1980) 21.53 %, Biswas A et al (1983) 20.1 % and a very high incidence reported by Choudhary S. et al (1984) 57.3 % in teenage primigravida. These variations reflect the status of the population served by the hospital which varies from region to region. The lower incidence in our series might be due to the fact that mothers ignorant enough to conceive early might have not had the hospital facilities and delivered at home and ill cared and ill attended. Similar observation was made by Marchetti and Menakar (1950) 93.7 % primigravidae, Bochner (1962) found the of primigravida to be 90 %. Goswami and Goswami (1989) found 92.32 % of the teenage were primigravida, 5.99 % 2nd gravida and 1.43 % were 3rd gravida [11]. Israel et al (1963) analysed data on 3,986 pregnancies of teenage mothers and reported that 71.3 % of patients were primipara, Ghosh and Ghosh (1976) reported 82.42 % of teenage patients were primigravida. Obviously primigravida constitute the majority of teenage pregnancy. In the present series the incidence is high in 18 and 19 years age groups and majority of mothers were primipara, since parity increase is parallel to advancement in age, that is why the number of primipara patient was high in teenage pregnancy [12]. In the present study duration of pregnancy was 37 to 38 weeks in 54.16 % of cases. In 20 % of cases duration of pregnancy was 35 to 36 weeks and one case was postdated 0.84%. The incidence of pre-term labour was 30.39 % [13]. Sen (1974) noted a similar incidence 31 % of preterm labour before 36 weeks among teenagers. Marchetti & Menakar (1950) found an incidence of preterm labour of 12% whereas Harris (1962) noted an incidence of 11.60 % In the present series the incidence of still birth was 7.5 % and early neonatal death was 5.83 % so the perinatal mortality was 13.33 % [14]. Mukhopadhyaya et al (1981) found a high incidence of perinatal death of 17.16 % while Goswami and Goswami (1989) reported an incidence of still birth of 11.03 % and neonatal death of 3.30 % [15]. Thus the perinatal death was 14.15 %, Ghosh and Ghosh (1976) noted an incidence of perinatal death of 10.40

% while Choudhary and Sikdar (1982) gave an incidence of perinatal death of 11.30 % among teenagers [16]. Pawar and Shrotri (1987) noted an incidence of perinatal death of 9.79 %. In the present series the incidence of maternal mortality was 3.34 %. Out of four deaths, 3 were due to eclampsia, cause of death was cardiorespiratory failure, one patient was having severe jaundice and died due to hepatic failure [17,18]. She came in hepatic precoma which progressed to hepatic coma. In the present series high incidence of maternal mortality is due to poor socio-economic condition of patients, illiteracy, social customs, false dependence upon the dias and lack of medical facilities and antenatal checkup [19].

Conclusion

Now on the basis of the above facts and figures it can very well be conclude that teenage pregnancy comes under high risk group. The importance of good prenatal care for the young primigravida cannot be overruled. The incidence of pre-eclampsia, eclampsia and prematurity was found to be higher in the teenagers. So it is preferable to admit the young teenagers in the hospital at 36 weeks. This will provide for better treatment, prevention of pre-eclampsia, eclampsia, anaemia and last but not the least prematurity. Prevention of early marriage and contraceptive awareness can reduce teenage pregnancy. It can also be reduced by proper education, removal of superstitions and social evils, sex education and improvement of socio-economic status of people in general and women in particular.

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