

Original Research Article

Pregnancy Outcome in Teenage Women - A Comparative Study

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ABSTRACT

Objectives: The high incidence of teenage pregnancy, inspite of increased literacy and legal bindings, and the variable opinion in terms of its complication has made worthwhile to carry out a study on the topic so as to throw a light on measures to minimize the complications.

Materials and methods: In this prospective study, 150 cases each of teenage pregnancy (Study group) and pregnancy between the age 20-25 years (Control group) during the past two years were chosen. The pregnancy related problems like anaemia, pregnancy induced hypertension, abnormal presentation, preterm labour, antepartum haemorrhage, instrumental delivery, perinatal outcome, etc were evaluated.

Results: The incidence of teenage delivery was 6.47%. The incidence of anaemia, PIH, preterm labour, antepartum bleeding, were significantly more in the study group ($P < 0.05$). However, no significant differences in the maternal and perinatal mortality rate were observed.

Conclusion: Teenage pregnancy incidence is still high and should be considered as a high risk because of remarkably increased incidence of complications

Key words: Pregnancy, Teenage, Complications.

INTRODUCTION

The incidence of teenage pregnancy is still high in India inspite of increased literacy rate and legal bindings. It is more in rural areas as early childbearing is still socially acceptable. In view of the considerably high incidence of teenage pregnancy and the variable opinion in terms of complications, it has been considered worthwhile to carry out a study on the topic so as to throw a light of measures to minimize complications.

MATERIALS AND METHODS

The study was conducted in a tertiary care centre at Imphal, Manipur, during the time period of September 2012 to August 2014. After taking approval from the Institutional Ethics Committee and written Informed Consent, 150 cases of teenage pregnancy between the ages of 13 to 19 years (Study group) and 150 cases of pregnancy similarly matched in terms of parity in the age group of 20-25 years (Control group) were enrolled for the study. The antenatal, intrapartum and postnatal parameters and the perinatal outcome were compared.

RESULTS

The incidence of teenage pregnancy was 6.47%. There was no unmarried mother in either of the groups. The maximum number of cases in the teenage group belonged to the age group of 17-19 years, the youngest being 14 years in the study. Maximum number of cases was primigravidae in both the groups. 12% of the study group and 29.34% of the control group were booked.

The incidence of anaemia (as shown in Table 1) was slightly more in the study group (68%) than the control group (63.32%). The incidence of preterm labour was also more in teenage group (11.99%) as compared to the control group (4.67%) with P value <0.05, which is significant.

The overall incidence of pregnancy induced hypertension (PIH) was 20.66% in teenagers whereas it was 11.33% in the control group (Table 2). The incidence was significantly more in teenage group at P value <0.05. Complications like anaemia, PIH, preterm labour were found more in the teenage group at P<0.01, highly significant.

There was no significant difference in the incidence of different foetal presentations in the two groups.

Gestational age at delivery for both groups is depicted in Table 3.

Regarding the mode of delivery, there was higher incidence of instrumental delivery in the study group (5.33%) compare to the control group (1.33%). No significant difference in the rate of vaginal and caesarean section delivery was observed.

There were no significant differences in the duration of labour and third stage complications in both the groups.

The incidence of low birth weight babies <2500gms in the teenage group (23.01%) was higher than that in the control group (16.44%) at P value <0.01. Regarding Apgar score of the live born babies, 9.95% in the study group and 3.33% in the control group had Apgar score <7 at one minute.

The perinatal mortality was 7.22% in the study group and 4.95% in the control group. Most of the perinatal deaths were found in the unbooked cases in both the cases, being due to prematurity and pregnancy induced hypertension. There were no significant differences in maternal and perinatal mortalities in both the groups.

Table 1 showing the overall incidence of complications during pregnancy.

Complications	Study group No of cases	Percentage	Control group No of cases	Percentage
Anaemia	102	68	95	63.32
PIH	31	20.66	15	10
Preterm labour	18	12	7	4.67
Placenta Praevia	1	0.66	1	0.66
Abruptio Placentae	1	0.66	0	0

Table 2 showing the incidence of PIH.

Type of PIH	Study group No of cases	Percentage	Control group No of cases	Percentage
Preeclampsia	28	18.66	15	10
Eclampsia	3	2	2	1.33
Total	31	20.66	17	11.33

Table 3 showing the gestational age at delivery.

Gestational age in weeks	Study group No of cases	Percentage	Control group No of cases	Percentage
<37 weeks	18	11.99	7	4.67
37 weeks or more	132	88.00	143	95.33

Table 4 showing the incidence of Teenage pregnancy.

Authors	Incidence(%)
Boschner K ^[1]	4
Sen DP ^[2]	8.2
Panchauri S and Jamshedji A ^[3]	5.1
PalMN et al ^[4]	7.6
Present study	6.4

DISCUSSION

The incidence of teenage delivery in the present study was almost similar to the findings of other authors (Table 4).^[1-4]

Our study showed only 12% of the teenagers received adequate antenatal care compared to 29.33% in the control group. In the studies of Sen DP,^[2] Ghosh N and Ghosh B,^[5] Osbourne GK et al,^[6] the number of teenagers receiving adequate antenatal care was less in comparison to control group. This lack of habits of patients in attending perinatal clinic may be due to poor socio-economic status and inadequate knowledge of pregnancy and antenatal care.

The incidence of anaemia was slightly higher in the teenage mothers (68%) than that of control group (63.32%). The higher incidence of anaemia may be because of improper antenatal care and malnutrition. Chhabra S^[7] found the incidence of anaemia in the study and control group as 70% and 61% respectively, which correlates well with this study. Proper antenatal care with timely investigations and treatment of the causative factor and supplementation with iron and other haemopoetic factors can correct the anaemia.

The incidence of pregnancy induced hypertension was higher in the teenage group (20.66%) than in the control group (11.30%). 3% of teenagers and 2% of the control had eclampsia in the present study, and this finding was almost similar with those of Sen DP,^[2] Chhabra S^[7] and Perkins RP et al.^[8] The present study also showed the incidence of pregnancy induced hypertension significantly higher in the teenage group in comparison to those of control (P<0.05).

Preterm labour was significantly higher in the study (11.99%) than the control group (5.99%) (P<0.05). Incidence of the preterm labour in the present study in teenage pregnancy was comparable with the findings of Ghosh N and Ghosh B^[5] (14.97%), Chhabra S^[7] (14%) and Biswas A and Goswami TK^[9] (15.3%).

In the present study, the incidence of preterm labour in the study group was two times that of control group. The probable causes are pregnancy induced hypertension, anaemia, malnutrition, and lack of adequate prenatal care.

There were no significant difference in the frequency of occurrence of placenta previa and accidental haemorrhage between the teenagers and the control group. Sen DP^[2] and Ghosh N and Ghosh B^[5] also did not find significant difference between the two groups.

The incidence of abnormal presentation was not high amongst the teenagers in the present study which was consistent with that of other authors like Ghosh N and Ghosh B,^[5] Chhabra S^[7] and Youngs DD et al.^[10]

The incidence of instrumental delivery (forceps and ventouse) was higher in the teenagers (5.33%) than that of control (1.33%) in the present study. The incidence of forceps application was high in the study of Youngs DD et al^[10] (42%), however most of the Indian authors^[7,11] had shown low incidence of instrumental delivery in the teenagers.

There was no significant difference in the incidence of caesarean section and duration of labour in both the groups in our study. Perkins RP et al^[8] and Biswas A and Goswami TK^[9] also observed similar duration of labour in both the groups.

There was no significant difference in the third stage complication in the present study. Panchauri S and Jamshedji A^[2] also recorded no significant difference.

In the present study, the incidence of low birth weight babies less than 2500gms in the teenagers group (23.01%) was higher than in the control group (16.44%) which was significant ($p < 0.05$). Dwyer F [12] found 16.9% of teenage mothers, delivering low birth weight babies.

The Apgar score of less than 7 was found in 9.52% teenagers and 3.33% of the control respectively in the present study, which was statistically significant ($P < 0.05$). However, Osbourne GK et al [6] noted no difference in Apgar score in both the groups.

The present study has shown a slightly higher incidence of perinatal mortality in the teenage group (7.22%) than the control group (4.59%) but statistically insignificant ($P > 0.05$). Ghosh N and Ghosh B [5] observed slightly higher incidence of perinatal mortality in teenagers (10.40%) than the control group (6.36%). Panchauri S and Jamshedji A, [2] Osbourne GK et al [6] and Perkins RP et al [8] noted no significant difference in perinatal mortality in the different age groups where as Biswas A and Goswami TK [9] had reported lower incidence of perinatal mortality amongst the teenage mothers.

The main causes of perinatal mortality were prematurity and pregnancy induced hypertension in the present series which tallies with the findings of Sen DP [2] and Ghosh N and Ghosh B. [5]

CONCLUSION

Incidence of teenage pregnancy is still considerably high inspite of increased literacy and legal bindings.

Pregnancy in teenage women should be considered as high risk because of remarkably increased incidence of pregnancy induced hypertension, preterm labour, low birth babies and higher perinatal mortality. Teenage pregnancy, therefore, demands close supervision by obstetricians and good neonatal care by

neonatologist for babies. On the other hand, the number of teenage pregnant women seeking for antenatal care is comparatively low which may account for significantly increased incidence of complications. Better antenatal care is most likely to reduce the magnitude of the complications. Hence, adequate antenatal care should be stressed on as indispensable through all possible means for teenagers who are pregnant for a better outcome. However, what is more important is to prevent or at least minimize teenage pregnancy as far as possible by increasing social awareness through better education and also by implementing the existing legislation.

REFERENCES

1. Boschner K. Pregnancy in juveniles. *Am J Obstet and Gynaecol.* 1962; 83: 269-71.
2. Sen DP. Pregnancy in Adolescent. *J Obstet Gynaecol Ind.* 1974; 24: 93-6.
3. Panchauri S and Jamshedji A. Risks of Teenage Pregnancy. *J Obstet Gynaecol Ind.* 1983; 33: 477-82.
4. Pal MN, Sachdeva JK, Anil P. Analysis of gestational Behaviour of teenagers. *J Obstet Gynaecol Ind.* 1986; 40: 733-38.
5. Ghosh N and Ghosh B. Obstetrics behaviour in teenagers. *J Obstet Gynaecol Ind.* 1976; 26: 722-26.
6. Osbourne GK, Howat RCL, Jordan MN. The obstetric outcome of Teenage Pregnancy. *Br J Obstet Gynaecol.* 1981; 88: 215-21.
7. Chhabra S. Perinatal outcome in teenage mothers. *J Obstet Gynaecol Ind.* 1991; 41: 30-32.
8. Perkins RP, Nakasima I, Mullin M, Dubansky LS, Chin ML. Intensive in Adolescent pregnancy. *Obstet Gynaecol.* 1978; 52: 179-88.
9. Biswas A and Goswami TK. Obstetrical behaviour and perinatal

- mortality of teenage mothers in urban population. J Obstet Gynaecol Ind. 1983; 33: 42-45.
10. Yungs DD, Niebyl JR, Blake DA, Shipp DA, Stanley J, King TM. Experience with an adolescent pregnancy programme. Obstet Gynaecol. 1977; 50: 212-16.
 11. Nayak HA, Puranic GK, Dalal AR. Obstetric outcome in teenage pregnancy. J Obstet Gynaecol Ind. 1992; 42: 442-46.
 12. Dwyer F. Teenage pregnancy. Am J Obstet Gynaecol. 1994; 118: 373-76.

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