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Original Research Paper

Analytical Study of Teenage Pregnancy in A Tertiary Care Hospital

Medical Science

KEYWORDS : Teenage pregnancy, Adolescent pregnancy

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ABSTRACT

Teenage pregnancy is pregnancy in human females under the age of 20 years at the time that the pregnancy ends. The objective of this study was to study the prevalence of teenage pregnancy, various socio-demographic factors associated with it and complications among teenage pregnancies and their maternal and perinatal outcome. This was an analytical study which was carried out during the period from July2012 to November2014. All the patients whose age were 19 or less at the time of obstetric outcome were included and their socio-demographic data, any antepartum or intrapartum complications and obstetric and perinatal outcome was studied and the data was analyzed. Prevalence of teenage pregnancy was 4.4%. Maximum patients belong to lower middle and poor socioeconomic class. Complications were more in unregistered patients. Among antepartum complications, 50.7% had anemia, 13% had hypertensive disorders and 11.6% had preterm labour. 12.3% had reproductive loss. Proper antenatal care, institutional delivery and postnatal care helps in reducing maternal and perinatal morbidity and mortality. Prevention can only be achieved by girl child education, increasing the legal age of marriage and abolishing child marriage.

INTRODUCTION

Teenage pregnancy is pregnancy in human females under the age of 20 at the time that the pregnancy ends. The transition from childhood to adulthood may be referred to as 'adolescence' or 'teenage', which has been defined by WHO as the period between 10-19 years.1 This is the period when structural, functional and psychological developments occur in a child to prepare her for assuming responsibilities of motherhood.

In developing countries, teenage pregnancies are often associated with many social issues, including lower education levels, higher rates of poverty and other poorer life outcomes in children of teenage mothers. Teenage pregnancy is an important public health problem in India, although the national policy of the Government of India advocates minimum legal age of marriage for girls to be 18 years. Data of National Family Health Survey (NFHS-3) revealed that 16% of women aged 15-19 years, have already started childbearing.2

Pregnancy in unmarried teen not only creates social problem but also there is a high risk of unsafe abortion.15% of all unsafe abortions in low and middle income countries are among adolescent girls aged 15-19 years.3

METHODS

This was an analytical study. It was carried out during the period from 1st July 2012 to 30th November 2014. Prevalence of teenage pregnancy was studied. All the patients whose age were 19 or less at the time of obstetric outcome, admitted to our obstetric unit were studied. Data was collected and then analyzed.

RESULTS

In our study, there were 18905 deliveries during 1st July 2012 to 30th November 2014 in our hospital and out of them, 805 were teenagers. So, prevalence was 4.4% .out of them 138 cases of our obstetric unit were studied in detail.

In our study, 83.3% (115/138) patients had taken atleast one antenatal visit and 16.7% patients had not taken any antenatal care anywhere.

Socioeconomic details of all patients were taken and all patients were stratified into 6 socioeconomic class according to modified BG Prasad classification (2008).4

TABLE 1-SOCIOECONOMIC STRATIFICATION

SOCIOECONOMIC CLASS	NO.	PERCENTAGE
Very poor	9	6.52
Poor	46	33.33
Lower middle	51	36.95
Upper middle	20	14.49
Higher	10	7.25
Upper high	2	1.44
Total	138	100

Majority of patients (76.8%) belong to lower middle, poor or very poor class.

In our study, 63.8% patients were 19 years old at the time of obstetric outcome and the rest 36.2% patients were 18 years or younger at the time of obstetric outcome. Early marriages are associated with lower levels of schooling and early sexual exposure as well as early conception.

We studied the education level of teenage patients and their husbands and we found that 12.3% (17/138) of patients and 9% (13/138) of their husbands were illiterate and 73.9 %(102/138) of patients and 51.4 %(71/138) of patients' husbands were having primary school or less education. Lower level of education leads to early marriages as well as early conception because of lack of knowledge of contraception.

In our study, all the patients were married. 122/138 (88.4%) of patients were living in large family (family size >4). Increasing family size is associated with lower levels of education as well as poor socioeconomic condition. When we look at the obstetric history of the patients, 123/138 (89.1%) patients were primigravidae, 12/138 (8.7%) were 2nd gravid and 3 patients (2.2%) were multigravidae.

From the menstrual history, we analyzed the menarche to marriage duration of the patients and found that 7.3% patients were having menarche to marriage duration of 2 years or less. It is called low gynaecological age.5 In our

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study, 129/138(93.5%) of women were not using any contraceptives.81.1% of pregnancies were unplanned, which suggests lack of awareness among them.

TABLE-2 ANTENATAL COMPLICATIONS IN TEENAGE PREGNANCY

Antenatal complications	No.	Percentage
Anemia	70	50.72
Hypertensive disorders	18	13
Preterm labour	16	11.6
Eclampsia	2	1.44
HIV	0	0
STI	0	0
Hepatitis B	1	0.72

Among antenatal complications, 50.72% had anemia, 13% had hypertensive disorders of pregnancy, 1.4% had eclampsia and 11.6% had preterm labour .Overall, the rate of complications was 90/138 patients (65.2%). Complications were more in unregistered cases (32/38) 82% than in registered cases (58/100)58%. Among intrapartum and postpartum complications, 2 patients had prolonged labour, 1 patient had abruption placenta and 2 patients were having postpartum hemorrhage. 13 patients required blood transfusion peripartum.

TABLE-3 OUTCOME OF TEENAGE PREGNANCY

Outcome	No.	Percentage
MTP	2	1.44
Abortion	9	6.52
Ectopic pregnancy	1	0.72
Preterm vaginal delivery	14	10.14
Fullterm vaginal delivery	72	52.28
LSCS	40	28.9
Total	138	100

If we look at the outcome of all teenage pregnancies, 1.44% patients underwent MTP, 6,5% had spontaneous abortion, 1 patient underwent laparotomy for ectopic pregnancy, 52.28% patient had fullterm vaginal delivery and 10.14% had preterm vaginal delivery and 28.9% had caesarean section of which 1 was preterm LSCS for abruption placenta. Among the indications for LSCS, cephalopelvic disproportion was commonest.

In perinatal outcome, total 57 /127 newborns were Low Birth Weight (<2500gms), out of them, 7% were Very Low Birth Weight (<1500gms) and 3.1% were Extremely Low birth Weight (<1000gms). Teenage mothers have increased incidence of Low Birth Weight babies.6 Out of 127 newborns, 25 newborns (19.6%) were admitted to NICU. Out of them, 4 (3.1%) expired due to prematurity and respiratory distress.

Discussion

The incidence of teenage pregnancy shows wide variation in developed and developing countries.7 Births to adolescents as a percentage of all birth ranges from about 2% in China to 18% in Latin America and Carrabbean. As per the DLHS III 8 (District Level Household and Facility Survey), In India, overall incidence of adolescent pregnancy is 5.6 %(rural 6.4% and urban 3.5%). In Gujarat, it is 3.4%. The prevalence of teenage pregnancy was 4.4% in our study.

83.3% patients had taken atleast one antenatal visit and 72.24% patients were registered cases while 27.6% were emergency cases. Complications were more in unregistered cases (32/38) 82% than in registered cases the rate was (58/99) 58.5%.NFHS3 data shows that in India 77.3 of teenage mothers have taken atleast 1 ANC.So, early ANC registration, adequate antenatal care and delivery by trained personnel can improve obstetric and perinatal outcome.

Girls from lower socioeconomic class are more likely to get married at earlier age and get pregnant at earlier age. This is one of the important causes of teenage pregnancy. In our study, majority of patients (76.85%) belong to lower middle, poor or very poor socioeconomic classes.

In present study, 36.2% of patients were 18 years or younger at the time of obstetric outcome and 44.2% patients were married before the age of 18. Early marriages are associated with lower levels of schooling and early sexual exposure as well as early conception. Strictly implicating laws against child marriage should be important step in reducing incidence and complications of teenage pregnancy. Among 138 patients, 123(89.1%) were primigravida, 12(8.7%) were second gravida and 3 patients were multigravida. It means 10.9% patients were 2nd or 3rd gravida.

In present study, 73.9% of patients and 51.4% of patients' husbands were having primary or less education.12.3% patients and 9.4% of patients' husbands were illiterate. In developing countries, especially in rural areas and among low socioeconomic group, girls are not allowed higher education, are married earlier and pushed into early motherhood.

Teenage pregnancy is associated with many health problems. In present study, 50.72% patients had anemia. Among them 10% had severe anemia (Hb <7gm %) Degree of anemia is also higher among currently married teenagers because they are physically immature to enter active reproductive life and they have to make adjustments to living away from maternal home and post-marital household diet. Risk of preterm birth is also more among teenagers. It is related to their immature physical development at the time of pregnancy and also associated with inadequate prenatal care.11.6% patients had preterm labour in our study.13/138 patients had hypertensive disorders of pregnancy, and among them 2 patients had eclampsia. There are many factors related to increased risk of PIH among teenagers like altered prostaglandin production. A mechanism involving inadequate nutrient intake like diet deficient in zinc, vitamins C, E and omega 3 fatty acids has been linked to increased incidence of preeclampsia. Research shows that pregnant teenagers may be at higher risk for the condition because of nonphysiological related issues like nulliparity, lack of prenantal care, low income and other sociodemographic factors.9

In present study, 17/138(12.3%) patients had reproductive loss in the form of MTP, abortion, stillbirth or intrauterine death. Rate of LSCS was 28.9% of which cephalopelvic disproportion was the commonest indication. Inadequate growth of pelvic bones, malnutrition, inadequate antenatal care, late arrival to hospitals are found to be causes for cephalopelvic disproportion and obstructed labour in teenagers. Neonatal mortality was 3.1% and there was no maternal mortality.

CONCLUSION

Teenage pregnancy is widely recognized as one of the most complex and serious social, economic and health problems. Teenage pregnancy can be decreased by active involvement of teenagers in sex education, family life programmes and social services. Improving female literacy and growing the self esteem among them are important tools in reducing teenage pregnancies. Despite the magnitude of problem, it

is unknown whether the poor outcomes of teenage pregnancy are partly attributable to the biological challenges presented by the young maternal age or whether they are solely the consequences of sociodemographic factors.

One of the important components in RCH programmes of our country is directed towards reproductive health services of adolescents. Many other programmes and institutes are directed towards prevention and improving outcomes of adolescent pregnancy in our country. However, continued research is required to improve teenage sexual and reproductive health services.

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