International Journal of Clinical Obstetrics and Gynaecology

ISSN (P): 2522-6614
ISSN (E): 2522-6622
© Gynaecology Journal
www.gynaecologyjournal.com
2018; 2(2): 17-20
Received: 07-01-2018
Accepted: 08-02-2018

Dr. Sharda Sarel
Junior Resident, Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur, Rajasthan, India

Dr. Kusumlata Meena
Senior Professor, Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur, Rajasthan, India

Dr. Lata Rajoria
Senior Professor, Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur, Rajasthan, India

Dr. Neha Sharma
Assistant Professo, Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur, Rajasthan, India

Correspondence
Dr. Sharda Sarel
Junior Resident, Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur, Rajasthan, India

A clinical study to assess the maternal and foetal outcome in teenage pregnancy

Dr. Sharda Sarel, Dr. Kusumlata Meena, Dr. Lata Rajoria and Dr. Neha Sharma

Abstract
Background: Teenage pregnancy is a social burden and reflects the country's attitude towards literacy and position of women in the society, traditional culture of early marriage, sex education, knowledge and use of contraception, accessibility of women to various health care facilities.
Aim & Objectives: To assess maternal outcome during pregnancy and labour in Teenage Pregnancies.
Material & Methods: All the primigravida teenage patients were included in study until we got 100 cases. For comparative study we took 100 cases of adult pregnancy by random selection. All patients were managed according to the department protocol and followed up clinically until they are discharged.
Results: The study shows that majority of cases (70%) of teenage mothers were illiterate as compared to adult mothers in which 25% were illiterate and shows that antepartum & postpartum complications were much higher in teenage mothers as compared to adult mothers.
Conclusion: Prevention of teenage pregnancy and reduced complications of teenage pregnancy can be achieved by improving the utilization of family planning services to reduce the rate of teenage pregnancies and minimizing their hazards and to prevent further pregnancies (by post-partum IUCD).

Keywords: foetal outcome, maternal outcome, teenage pregnancy

Introduction

Teenage pregnancy is widely recognized as one of the most complex and serious social, economic and health problems throughout the world. Teenage pregnancy is a high risk pregnancy. Outcome is less satisfactory than that of a pregnancy in general population.

Teenage pregnancy is defined as pregnancies which occur in a female below the age of 20 years. A female can become pregnant as early as two weeks before menarche (first menstrual period), although rare, but usually occurs after menarche. In healthy, well-nourished girls, menarche normally takes place around the ages twelve or thirteen. The transition from childhood to adulthood referred as 'adolescence' or 'teenage', which has been defined by the World Health Organization as the period between 10-19 years [1]. This is the period when structural, functional, mental and psychosocial developments occur in a child to prepare her for assuming the responsibility of motherhood. The needs of a wellbeing of girls in this age group, in India, however are neglected. The centre for Development and Population Activities (CEDPA, 2001) states that there are an estimated 105 million teenage girls in the age group 10-19 years in India. In India, early marriage for girls receives religion and social sanction. There are strong cultural pressures on parents to marry their daughters early. Thus, there are over 10 million pregnant teenagers and teenage mothers in India, with one in six girls age 13-19 years beginning child bearing. But these girls are prepared neither physically nor emotionally for pregnancy and motherhood. Teenagers who marry between aged 15-19 years will nonetheless bear on average 6-7 children over the course of their lives [2]. Each year one million Teenagers become pregnant. Approximately 46% of these pregnancies result in live births, 41% are aborted and remainder end in miscarriage and stillbirth.

According to UNICEF (2001), in some countries such as Italy and Spain, the low rate of teenage pregnancy (six births per 1000 women aged 15-19 years in 2002 in both countries) may be attributed to traditional values and social stigmatization. These two countries also have the low abortion rates and their teenage pregnancy rates are among the lowest in Europe.

In the poorest regions of the world over one in three teenage becomes pregnant. Half of all Teenage births occur in one of these seven countries: Bangladesh, Brazil, the Democratic Republic of the Congo, Ethiopia, India, Nigeria, and the United States [3]. Fourteen percent of all

unsafe abortions in low and middle income countries are among women aged 15-19 years. About 2.5 million teenagers have unsafe abortions every year, and teenagers are more seriously affected by complications than are adult women [3].

According to India Country Profile (2008) at national level, the latest survey indicated that approximately four percent of women aged 15-19 years were reported to be currently pregnant with their first child. Higher prevalence was found among women in rural areas. By age, highest rate of teenage pregnancy is found in the age group of 18 to 19 years. By sub-regional level, data in 2005/2006 indicated that the teenage pregnancy rate varied from 0.8 percent in Jammu to 5.7 percent in Bihar and Kerala with 2.9 percent.

Teenage pregnancy is a social burden and reflects the country's attitude towards literacy and position of women in the society, traditional culture of early marriage, sex education, knowledge and use of contraception, accessibility of women to various health care facilities, services and affordable contraception optional.

In fact, In-spite of Child Marriage Restraint Act 1978, a substantial proportion of rural marriages in India continue to take place when the girl is around 15 years. Early marriage coupled with an ingrained tradition to bear a child within 1-2years of marriage to be accepted by the in-laws puts undue pressure on the married teenage girl to bear a child.

Teenage pregnancy is often referred to as 'at-risk pregnancy' and is of grave concern. Several medical complications like preterm birth, poor maternal weight gain, pregnancy-induced hypertension, anaemia, preeclampsia and sexually transmitted diseases are strongly associated with teenage pregnancy.

Psychosocial problems implicated in teenage pregnancy include school interruption, persistent poverty, limited vocational opportunities, and separation from the child's father. When pregnancy does interrupt a teenage education, a history of poor academic performance usually exists. Having repeated births before 18 years of age have a negative effect on high school completion. Many teenagers believe that looking after a baby will be the happiest time of their lives.

Teenage pregnancy is dangerous for the children. Stillbirths and death in the first week of life are 50% higher among babies born to mothers younger than 20 years than among babies born to mothers 20-29 years old. Deaths during the first month of life are 50-100% more frequent if the mother is teenage versus older, and the younger the mother, the higher the risk. The rates of preterm birth, low birth weight and asphyxia, intra-uterine growth restriction, malnutrition, late physical and cognitive development are higher among the children of teenage mothers, all of which increase the chance of death and future health problems for the baby.

This study is an attempt to find out various risk factors associated with teenage pregnancy. Its effect on foeto-maternal outcome and it's comparison with adult pregnancy. This study also planned to suggest preventive and social measures to reduced maternal and perinatal morbidity and mortality in teenage pregnancy by improving antenatal care and health services.

Material & Methods

The prospective study was conducted in the Department of Obstetrics and Gynecology, SMS Medical College and attached Group of Hospitals, Jaioupr, during the period 2016-2017. It included 100 cases of primigravida teenage pregnancies and 100 cases of adult pregnancies. Primigravida teenage mothers aged 13-19 years were taken as case and primigravida adult mothers aged 20-29 years were taken as control.

Only primigravida women selected

- To eliminate the influence of parity
- Age between 20-29 years considered since this age group is generally regarded as safe for child birth.

Cases to exclude are

- Elderly primigravida (>30 year of age)
- H/o pre-pregnancy medical illness. e. g. HT, Diabetes, cardiac, renal, endocrine or autoimmune disease.
- Any perinatal complication occurring after 72hours of delivery.
- Multiple gestation

All the primigravida teenage patients were included in study until we got 100 cases. For comparative study we took 100 cases of adult pregnancy by random selection.

All patients were managed according to the department protocol and followed up clinically until they are discharged. Technically, booked mothers are defined as those who have had at least three antenatal care visits at our centre, while the unbooked mother are those who have had no antenatal care visit in our centre or those who registered at our centre but has less than three antenatal clinic visits, and patients referred as emergencies from other facilities or traditional birth attendants. Socioeconomic measures obtained included age, marital status, educational qualifications and type of employment of the patient and their spouse. Socioeconomic status is computed using the methods reported by Modified kuppuswami scale, this classification is based on the education and occupation of both partners.

Maternal outcome measures include

- Complications during pregnancy
- Mode of delivery
- Duration of labour
- Incidence of maternal death

Neonatal outcome measures include

- Gestational age
- Birth weight
- Apgar score at 1 minute/5 minute
- Neonatal intensive care admission
- Perinatal mortality

Table 1: Distribution of Cases According to Age

Age (Years)	Teenage Mothers		Age (Years)	Adult Mothers	
	No. of Cases	Percentage		No. of Cases	Percentage
≤15	1	1	20-21	53	53
16-18	30	30	22-27	37	37
19	69	69	28-29	10	10
Total	100	100	Total	100	100
Mean± SD	18.66±0.590		Mean± SD	23.25±3.092	

Table 2: Distribution of Cases According to Socioeconomic Status

Socioeconomic status	Teenage Mothers		Adult Mothers	
	No. of Cases	Percentage	No. of Cases	Percentage
Upper	3	3	9	9
Middle	38	38	58	58
Lower	59	59	33	33
Total	100	100	100	100
	2=14.514		P value =0.001	

Table 3: Distribution of Cases According to Literacy Level

Socioeconomic status	Teenage Mothers		Adult Mothers	
	No. of Cases	Percentage	No. of Cases	Percentage
Illiterate	70	71	25	25
Primary Level	27	27	43	43
Secondary Level	3	3	24	24
Graduation	0	0	8	8
	2=49.306		p value =0.000	

Table 4: Distribution of Cases According to Antepartum Complications

Antepartum Complications	Teenage Mothers		Adult Mothers	
	No. of Cases	Percentage	No. of Cases	Percentage
GHT	6	6	2	2
Pre Eclampsia	4	4	1	1
Eclampsia	3	3	1	1
APH	4	4	2	2
IUGR	4	4	2	2

Table 5: Distribution of Cases According to Postpartum Complications

Postpartum Complications	Teenage Mothers		Adult Mothers	
	No. of Cases	Percentage	No. of Cases	Percentage
PPH	5	5	2	2
Retained Placenta	3	3	1	1
Perineal Hematoma	3	3	1	1
Cervical Tear	4	4	2	2

Table 6: Comparison of Booked Teenage Mothers and Adult Mothers

Complications	Teenage Mothers (Total No. of cases :10)		Adult Mothers (Total No. of cases :68)	
	No. of Cases	Percentage	No. of Cases	Percentage
Anemia	0	0	7	10.29
HT	1	10	1	1.47
IUGR	0	0	0	0
Preterm	0	0	0	0
LBW	0	0	1	1.47
IUD	0	0	0	0
Stilborn	0	0	0	0
APH	0	0	1	1.47
PPH	0	0	1	1.47

Results

The results shows maximum number of teenage mothers belonged to the age group of 16-19 years (99%). (Table 1) In teenage mothers more cases (59%) were related to lower socioeconomic status than adult mothers (33%). (Table 2)

The study shows that majority of cases (70%) of teenage mothers were illiterate as compared to adult mothers in which 25% were illiterate (Table 3) and shows that antepartum & postpartum complications were much higher in teenage mothers as compared to adult mothers. (Table 4 & 5)

Table 6 reveals that most of the complications occurred in unbooked and registered cases where as booked cases had their pregnancy outcome relatively uneventful emphasizing the importance of antenatal care.

Discussion

Teenage is basically a time for growing up and the child is not physically and emotionally mature enough to reproduce. Hence, if the girl is taken out of school at this time and pressurized into marriage, it can causes considerable emotional stress. Furthermore, these young girls, having little or no knowledge of contraception, usually become pregnant soon after marriage which further aggravates the physical and psychological stress.

Since teenage pregnancy tends to be more common in the lower socioeconomic groups that is responsible for increased obstetric hazards to both mother and foetus. More over pregnancy and delivery in teenage mothers are at higher risk due to poor antenatal care attendance or may be due to poor antenatal services. Lack of health education, religious taboos of child marriage and against use of family planning methods account for increased incidence of teenage pregnancy which is further complicated by poor socioeconomic status, illiteracy, unhygienic living standards, home confinements and lack of transportation in far flung areas.

In our study 99% of teenage mothers were from age group 16-19 years and 1% from age group 15 years or less, whereas maximum number of adult mothers (53%) belonged to the age group of 20-21 years and 10% belonged to the age group of 28-29 years. This is comparable to other studies [4, 5].

Most of the teenage mothers (59%) belonged to lower socioeconomic status. It prevents them to take benefit from available facilities. That is why more teenage mothers were associated with pregnancy related complications. Various studies [6-8] shows similar results.

Our study also showed that 70% of teenage mothers were illiterate and thus leading to early marriage, early conception, poor quality of life. Female literacy is correlated strongly with decline in fertility, development of self-confidence, increasing

age of first sexual intercourse, delaying marriage and use of contraception. This study is comparable to other studies [7, 9-12].

In our study antenatal complications were higher among teenage mothers as compared to adult mothers. GHT present in 2% of cases, preeclampsia 4%, eclampsia 3%, APH 4%, IUGR 4%. This is comparable to other studies [13-15].

Conclusion

Prevention of teenage pregnancy and reduced complications of teenage pregnancy can be achieved by following steps as concluded from this study.

- By improving overall socioeconomic status of our female population and better nutrition especially during pregnancy.
- Awareness on the fact that one should not marry before the age of 20 years.
- By improving the utilization of family planning services to reduce the rate of teenage pregnancies and minimizing their hazards and to prevent further pregnancies (by post-partum IUCD).

References

1. Programming for Adolescent Health and Development. WHO Technical Report Series. 1999; 886:1-217.
2. Bhatia BD, Chandra R. Adolescent mother. Ind J Matern Child Health. 1993; 4(3):67-70.
3. WHO Publication: Maternal, newborn child and Adolescent, 2012.
4. Nusrad Shah, Dileep Kumar Rohra, Samia Shuja, Nagina Fatima Liaqat, Nazir Ahmad Solangi, Kelash Kumar *et al*. Comparision of obstetric outcome among teenage and non-teenage mothers from three tertiary care hospitals of Sindh, Pakistan. JPMA. 2011; 61:962.
5. Prianka Mukhopadhyay, Chaudhuri RN, Bhaskar Paul. Hospita-based Perinatal Outcomes and Complications in Teenage Pregnancy in India. J Health Popul Nutr. 2010; 28(5):494-500.
6. Khandait D, Ambadekar N, Zodpey S, Vasudeo N. Maternal age as a risk factor for stillbirth. Indian Journal of Public Health. 2000; 44:28-30.
7. Shrestha S. Socio-cultural factors influencing adolescent pregnancy in rural Nepal. International Journal of Adolescent Medicine & Health. 2002; 14:101-109.
8. Rashid S. Emerging changes in reproductive behaviour among married adolescent girls in an urban slum in Dhaka, Bangladesh. Reproductive Health Matters. 2006; 14:151-59.
9. Sharma A, Verma K, Khatri S, Kannan A. Determinants of pregnancy in adolescents in Nepal. Indian Journal of Paediatrics. 2002; 69:19-22.
10. Goonewardena I, Deeyagaha Waduge R. Adverse effects of teenage pregnancy. Ceylon Medical Journal. 2005; 50:116-120.
11. Ezeqwui HU, Ikeako LC, Ogbuefi F. Obstetric outcome Teenage Pregnancy at a tertiary hospitalies in ENUGU, Nigeria. Nigerian jpurnal of clinical practice. 2012; 5:2.
12. Waszak C, Thapa S, Davey J. Influence of gender norms on the reproductive health of adolescent in Nepal-perspectives of youth. World Health Organization, Geneva. Available from, 2003. http://www.who.int/reproductivehealth/publications/towards_adult hood/11.pdf, Accessed 17/02/08.
13. Indranil Dutta, Prashant Joshi. Maternal and Perinatal Outcome in Teenage Vs. Vicenarian Primigravidae-A Clinical Study. Journal of Clinical and Diagnostic Research. 2013; 7(12):2881-2884.
14. Aznar R, Bennet AE. Pregnancy in the adolescent girl. Am Obstet Gynaec. 1961; 81:934.
15. Pun KD, Chauhan. Outcomes of Adolescent Pregnancy at Kathmandu University Hospital, Dhulikhel, Kavre**.** Kathmandu Univ Med J. 2011; 33(1):50-3.