



Teenage Pregnancy – An Unsafe Journey towards the Risky Destiny

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ABSTRACT

Adolescence is defined as the period between 10 & 19 years by world health organisation. Adolescence is a critical period of biological & physiological changes. In India 4.3% of female deaths in this age group are related to pregnancy & child birth. Adolescent pregnancy is associated with its increased risk of obstetric & medical complications. Due to biological immaturity of adolescent, the body is ill prepared to sustain pregnancy & to provide safe delivery of the infant.

MATERIAL & METHODS: All pregnant girls between the age group 13-19 years are includes .Pregnant teenage girls with any systemic disease and who do not want to continue the pregnancy are excluded.

RESULTS: Anaemia was the most common complication(64%) followed by preeclampsia (10%) & intra uterine growth retardation (8%).Preterm labour was the most common complication seen in 32% followed by premature rupture of membranes (8%). Placenta previa was the least common complication (1%). Neonatal morbidity was observed in 29% of babies born to adolescent mothers. Infected Episiotomy was the most common complication(5%) followed by infected abdominal wound(3%),urinary tract infection(2%) & post partum Pyrexia(2%).

CONCLUSION: Adolescent pregnant women are more prone to complication during pregnancy and delivery, despite of good antenatal, intra partum and perinatal care. The incidence of maternal and neonatal morbidity and mortality remains higher among the adolescent pregnant mothers.

KEYWORDS: Adolescence, anaemia, preeclampsia, preterm labour, placenta previa.

INTRODUCTION

Adolescence is a period of life where a care free child becomes the responsible adult. World Health Organisation has defined adolescence as the period in human growth and development that occur after

childhood and before adulthood, from ages ten – nineteen years. Adolescence is the period of physical, cognitive and social maturation between childhood and adulthood^{1,2}. The beginning of adolescence occurs around the onset of puberty and

is therefore marked by dramatic changes in hormone levels and in physical appearance. There is a marked acceleration of physical and emotional development between 13 and 18 years induced by endocrine stimuli. Early adolescence is characterized by changes to the body as a result of puberty, which comprises three endocrine events : adrenarche, gonadarche and activation of growth axis^{3,4}.Teenagers are divided into two groups.

- A. Younger teenagers --- 16 years and under
- B. Older teenagers --- 17 – 19 years.

According to the family planning association of India, out of 4.05 million marriages which take place annually, about thirty lakhs are minor girls and almost 4.3% of the female deaths in this age group are related to pregnancy and child birth. Four in ten young woman become pregnant at least once before they reach the age of twenty⁵. Most reports of births to teenagers indicate an increased risk of developing some complications of pregnancy and poor neonatal outcome. Adolescence is normally a period of high nutritional needs due to the rapid growth and development of growing body and may rapidly deplete already limited resources. Due to the biological immaturity of the adolescent, the body is ill prepared to sustain pregnancy and provide safe delivery of the infant. Improving nutritional habits during pregnancy improve birth outcomes and develop positive eating habits in the adolescents⁶. Adolescent girls present with higher obstetrical and medical risks. The most common complications are anaemia, pregnancy induced hypertension, premature labour and sexually transmitted diseases⁷. Cephalo pelvic disproportion occurs in teenage mothers since pelvic growth is not usually complete until several years after menarche. Childhood nutritional deprivation will also be responsible for stunted growth and small pelvis⁸. Maternal mortality in teenagers is an unforgivable tragedy. Adolescent pregnancy is independently associated with increased risks of adverse pregnancy outcome⁹. Adolescent pregnancies have higher maternal and feral mortality and morbidity when compared with adult age group^{10,11}. Most deaths are due to eclampsia, puerperal infection, hemorrhage, anemia, increased incidence of operative deliveries and

obstructed labour.¹⁴ Woman of young maternal age are approximately 2.5 times more likely to have a low birth weight infant and 3.4 times more likely to have preterm birth¹². Infants born to adolescent mothers (immature) suffers from improper care , poor nutrition , infections , delayed immunization^{13,14}.

AIMS AND OBJECTIVES

1. Clinical study of obstetric performance in adolescent pregnancy.
2. To know the maternal mortality and morbidity in adolescent pregnancy.
3. To know the peri-natal outcome in adolescent pregnancy.
4. To detect the complications early and to motivate them for regular ante-natal checkup.

MATERIAL AND METHODS

All pregnant girls between the age group 13-19 years are includes.

Pregnant teenage girls with any systemic disease and who do not want to continue the pregnancy are excluded.

To determine ante-natal, intra-natal and post-natal period, normal, abnormal consequences and sequelae. Detail history was taken including the age at booking, marital status, socio-economic status, education, employment status and parity. The age at menarche and last menstrual period were also noted and the expected date of delivery was calculated after making due allowance to the regularity or irregularity of the menstrual cycle. The expected date of delivery was conveyed to the patient and was advised to attend the ante-natal clinic regularly. Thorough systemic examination and obstetric examination were done. The weight, height and blood pressure of each patient were recorded. Routine investigations were done. Anomaly scan was done between 20-22 weeks of gestation. Bio Physical Profile was done after 36 weeks of gestation. For high risk cases bi-weekly non stress test and weekly bio physical profile were done after 36 weeks of gestation. Doppler study was done as and when indicated. During the course of

pregnancy if any complication arose the patient was advised to attend frequently and if necessary she was hospitalized. All the patients during ante-natal followup period were on folic acid, iron and calcium supplements. They receive two doses of injections Tetanustoxide. Close monitoring during the labour for progress, duration and outcome was done charting partogram. Post-natal followup for any evidence of the infection, persistence of hypertension and breast feeding problems and occurrence of complications like breast engorgement, cracked nipple and breast abscess were noted. Post-natal advice was given regarding post-natal exercises, continuation of breast feeding, contraception and spacing. All babies were directly under the supervision of the neonatologist. Sick babies and pre mature babies were shifted to neo-natal intensive care unit.

RESULTS

Incidence of adolescent pregnancy constituted maximum of 19 years old (63%), followed by 18 years old (31%), 17 years (5%) and <16 years (1%).

Most of the adolescent pregnant women were from low socioeconomic status (74%), middle class (25%) and high socio economic class(1%). Majority of them had primary school education (39%).

Maternal complication at the time of admission include Anemia(64%), Preeclampsia (10%), Intra uterine growth retardation(IUGR) (8%) (Table: 1).

Table: 1 Maternal complication at the time of admission

Maternal Complications	No. of Cases	%
Anemia	64	64%
Pre Eclampsia	10	10%
Eclampsia	6	6%
Premature rupture of membranes	4	4%
Intrauterine growth retardation	8	8%
Oligohydramnios	7	7%
Twin Pregnancy	1	1%
Post Datism	2	2%

Preterm labour was the most common complication during labour (32%) (Table:2)

Table :2 Complications during labour

Complications	No. of Cases	%
Pre term Labour	32	53.33%
PROM	8	13.33%
PPROM	8	13.33%
Placenta previa	1	1.66%
Abruption Placenta	2	3.33%
Malpresentation	6	10%
Fetal distress	5	8.33%
Cord prolapse	2	3.33%
Atonic PPH	3	5%

Normal vaginal delivery was the most common mode of delivery (65%) (Table:3)

Table: 3 Mode of delivery

Mode of delivery	No. of Cases	%
Normal vaginal delivery	60	60%
Forceps	15	15%
Ventouse	3	3%
Caesarean section	20	20%
Assisted breech delivery	2	2%

Indications for caesarian section elaborated in (Table :4)

Table :4 Indications for cesarian section

Indications	No. of Cases	%
Fetal distress	4	20%
CPD	3	15%
Cord prolapsed	3	15%
Severe PIH with IUGR	4	20%
Breech presentation	1	5%
Twin	1	5%
Failure of induction	4	20%

Respiratory distress syndrome is the most common causes for neonatal morbidity (Table :5)

Table : 5 Cause of neonatal morbidity

Causes	No. of Cases	%
Birth asphyxia	4	19.04%
Septicaemia	2	9.52%
Respiratory Distress Syndrome	7	33.33%
Necrotizing enterocolitis	3	14.28%
Meconium Aspiration Syndrome	1	4.76%
Congenital anomalies	4	19.04%
Hypocalcemia	1	4.76%
Intra ventricular hemorrhage	1	4.76%
Neonatal Jaundice	6	28.57%

Birth asphyxia and respiratory distress syndrome caused neo natal mortality in two neonates (2%) each and congenital anomalies in one neonate (1%). Infected episiotomy (5%) was the most common post partum complication (Table:6).

Table : 6 common post partum complication

Complications	No. of Cases	%
Infected Episiotomy	5	5%
Infected abdominal wound	3	3%
Post partum Pyrexia	2	2%
UTI	2	2%

DISCUSSION

Adolescent pregnant women are two times more prone to complications during pregnancy and delivery compared to the women in their twenties. The main factors influencing the complications are psychological and biological immaturity, low socio economic status, poor ante natal care and absence of health consciousness of being a high risk case. The adolescent pregnant women must be given due care in the hospital, advised to undergo regular ante natal checkups and adequate diet. Anemia and pregnancy induced hypertension have to be detected early and treated accordingly in order to avoid the higher incidence of premature births. Fetal problems of

teenage pregnancies often result in low birth weight, pre mature babies and all complications associated with prematurity and intra uterine growth retardation. All the booked patients during antenatal period were on folic acid, iron and calcium supplements. The maternal complications in the antenatal follow up and intrapartum period were recognized and were adequately managed. All the babies were kept under the direct supervision of neonatologist and the neonatal complications. The unbooked primigravida mother is a high risk case and a distinct obstetric problem taking into consideration her physical, psychological, mental immaturity and her low socio-economic status. She needs to be given special attention and she should be made to understand the importance of proper diet and regular antenatal visits. Despite good ante natal, intra partum and peri natal care, the incidence of maternal and neonatal morbidity and mortality still remains higher among the adolescent pregnant mothers.

CONCLUSION

Adolescent pregnant women are more prone to complication during pregnancy and delivery, despite of good antenatal, intra partum and perinatal care. The incidence of maternal and neonatal morbidity and mortality remains higher among the adolescent pregnant mothers.

REFERENCES

1. LernerRM , SteinbergL , editors. Handbook of Adolescent psychology. 2nded , R.M. Hoboken , NJ : Wiley ; 2004.
2. SiskCL , Foster DL .The neural basis of puberty and adolescence. NatNeuroSci.2004 ; 7 : 1040-1047.
3. DornLD. Measuring puberty. J.Adolesc Health. 2006;39:625-626.
4. SpearLP.The adolescent brain and age – related behavioural manifestations. Neurosci Biobehav Rev. 2000 ; 24:417-463.
5. Ventura, S.J., Mathews , T.J. , and Curtin , S.C.(1999). Declines in teenage birth rates , 1991-1998 : Update of national and state

- trends. National Vital Statistics Report , 47 (26) , 5-10.
6. Lenders C.M , Mc Elrath T.F , Scholl T.O. Nutrition in adolescent pregnancy. Current opinion in paediatrics. 2000;12:291-296.
 7. Malamitisi – PunchnerA, BoutsikouT 2nd Department Obstetrics and Gynaecology , University of Athens , Athens , Greece. Malamitisi @ aias.gr
 8. Rah JE , Christian P , Shamin AA , Arjun UT, Labrique AB, Rashid M. Pregnancy and lactation, hinder growth and nutritional status of adolescent girls in rural Bangladesh. J Nut 2008 ; 138 : 1505 -1511.
 9. Agustin Condi – AgudeloMD , MPH , José M. Belizan MD , PhD , Cristina Lammers MD , MPH : American Journal of Obstetrics and Gynaecology. February 2005 , vol. 192 (2) : 342-349 , dpi : 10.1016/j.ajog.2.
 10. Condi – AgudeloA ,Belizan JM , Lambert C. Maternal – Perinatal morbidity and mortality associated with adolescent pregnancy in Latin America : Cross – sectional study . AmJobstatGynecol .2005 ; 192 : 342-349.
 11. Jolly MC ,Sebire N , Harris J , Robinson S , Regan L. Obstetric risks of pregnancy in women less than 18 years old . ObstetGynecol . 2000 ; 96 : 962-9
 12. M.D., M.P.H. Helen M. DuPlessis , Ph.D.RobertBell,Ph.D. Toni Richards. Journal of Adolescent Health ;March 1997 , volt. 20(3): 187-197 , dpi:10.1016/31054-139x.
 13. AgarwalN , Reddaiah VP. Factors affecting birth weight in a suburban community . Health PopulPerspect Issue 2005;28:189-96.
 14. World Health Organisation. Towards adulthood: exploring the sexual and reproductive health of adolescents in South Asia . Geneva: World Health Organisation; 2003.