Young teenagers and child birth

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Abstract

In a retrospective analysis done at TU Teaching Hospital between 15 Aug 1997 and 14 Aug 1998, 57 teenage mothers (13-17 years) represented twenty per thousand deliveries (total deliveries, 2799).

The usual documented complications like prematurity and low-birthweight were seen in 16% and 24.5% respectively. Pregnancy complication such as eclampsia was seen in one case that delivered a low birthweight baby with poor apgar.

Most of these young mothers had vaginal deliveries (86%). The caesarean section rate was 14%, which could have been further lowered,
if there were no complications like foetal distress (3) and abnormal presentation (2).

Excepting a case of pregnancy that occurred in a 13-year old girl due to sexual abuse, all the other pregnancies followed marriage. This indicates that adolescent reproductive health is a neglected arena requiring some change. Hence full attention has yet to be focused on adolescent reproductive health, particularly directed towards preventing early marriage and early child bearing which is detrimental to adolescent reproductive health.

Keywords: Teenage pregnancy; early marriage; adolescent reproductive health.

Introduction

In western world teenage pregnancy usually result from disturbed family background in abused children with varying relationship with mother and often unstable relationship even with the partner, all cornered to imply psychosocial problem.[1] The situation prevailing in our country is entirely different and is primarily due to early age of marriage.

The incidence of pregnancy at 15-19 for 1000 pregnancy has been shown to be 96 (USA), 14 (Netherlands), 2-44 (England and Wales).[2] Downward trend has been observed in America with 2% decline since 1992 though pregnancy below 14 has almost remained constant.[3,4] However earlier data showed an increase in the rate of schoolgirl pregnancy from 4%-6% through 1973 - 1983.[5] Mid seventies saw an epidemic of teenage pregnancy. More than 12000 girls were found to be pregnant below 16 years of age in England and Wales.[6]

About 95-98% of pregnancies are unwanted in these vulnerable adolescents, 5% usually conceive at the very first coitus. Though the majority often decides later to keep the pregnancy eventually, many more decide termination.[1,7] Many of them were booked for ANC after 20 weeks and 90% did not remember their LMP at all. Anaemia was noted in 14-19% while pre-eclampsia was seen in 16% in under 16.[8] In 100 pregnancy between 13-16 years there was increased incidence of PIH and pre-term birth.[9,10]

Foeto-pelvic disproportion once thought to be due to incomplete development of maternal pelvis is no more thought to be important presently.[11] This holds true because no added risk of prolonged labour or operative delivery has been reported that is significant. Moreover many authors have comparatively found lower rate of caesarean (9.2%) in teenage than 20-24 age group (14.7%).[8] Birch[1] reported similar caesarean rate of 10%. This is further supported by an additional information obtained from 103 cases who were 16 at conception with fewer LSCS (4%). However the instrumental delivery was 10%.[12]

Reports from 163 young teenage pregnancy confirms that major factors are not affected by facts documented earlier.[13] James[14] (1969) found that these teenagers were free from obstetrical problems provided they received better antenatal care. Few observations have been made of the low birthweight and very low birth <1500 gm which was increased to two folds.[15]

Objective

To study the obstetrical performance of young teenagers age 13-17 years.

Material and methods

Retrospective analysis was done from information obtained from hospital records. The study subjects were the adolescents

of 17 years and below who delivered in TU Teaching Hospital in one-year period between 15th Aug 1997 to 14th Aug 1998. Descriptive analysis was done regarding pregnancy outcome of adolescent mothers and the results are presented herewith.

Results

There were 57 adolescent mothers of 17 years and below in one-year period beginning August 1997 - August 1998 in total 2799 deliveries. The youngest mother, a 13-year old had an emergency caesarean section for cephalopelvic disproportion (CPD). She conceived due to sexual abuse.

Fifty-four adolescent mothers were primipara while 3 were second gravida in such a tender age.

Nine delivered prematurely (16%), out of which 50% were between 31-33 weeks.

There were 8 emergency caesarean sections (14%), 3 each were done for CPD and foetal distress, one each for breech and cord prolapse.

There were 2-ventouse delivery; of which one was a case of twins.

The rest of the deliveries were vaginal (No=49) including a case of vaginal breech delivery in one primigravida, 17 years of age and baby's weight was 2.5 kg.

A young mother of 16 was complicated with shoulder dystocia. The baby's weight was 3.5 kg.

Birthweight ranging from 2.5 to 3.5 kg, were seen in 44 (77%), while birthweight up to 1500 gms were observed in 2 cases. Twelve babies weighed between 1.6 to 2.4 kg. Apgar at birth was observed to be 4 and below in 3 cases, which was explainable, as it occurred in cases of cord prolapse, eclampsia and post-dated pregnancy. All the babies were alive except for one of the discordant twins that was macerated stillbirth weighing 1 kg.

Among these adolescent mothers, pregnancy was complicated with heart disease, like mild, Mitral regurgitation (MR) in one case. However the Neonatal outcome was good in this particular case because the apgar was 7 and 8 in 1 and 5 min; and baby's wt was 2.6 kg.

Abnormal pregnancy, such as twin (1), Breech (2) and cord presentation (1) resulting in cord prolapse were also seen.

A young mother of 17 was admitted with fits. The baby's apgar was 3 in 1 minute and weighed 2.3 kg indicating adverse perinatal outcome.

There was a case of primary post partum haemorrhage (PPH). A young mother needed relaparotomy within 6 hours of LSCS for breech at 40 weeks on account of intraperitoneal bleeding from the uterine wound. Her postoperative recovery was good.

Table I: Young teenagers; age distribution

Age	*No.*	*Percentage %*
13	1	1.8
14-15	0	0
16	10	17.5
17	46	81.0
Total	57	100

Table II: Young teenagers; parity

Parity	*No.*	*Percentage %*
G1P0	54	94.7

G2P1	3	5.3
Total	57	100

Table III: Young teenagers: period of gestation at birth

Period of gestation in weeks	*No.*	*Percentage %*
31-33	4	7
34-36	5	8.7
37-42	46	80.7
>42	2	3.5
Total	57	100

NB. * Ventouse - in a preterm twin at 31 weeks.

** Shoulder dystocia in girl 16 years of age and her baby weighed 3.5 kg.

Table IV: Young teenagers: indication of caesarean section

Indication	*No.*	*Percentage %*
CPD	3	5.3
Fetal Distress	3	5.3
Breech	1	1.8
Cord Prolapse	1	1.8
Total	8	14

Table V: Young teenagers: birth weight in kg

Birth Weight in KG	*No.*	*Percentage %*
1-1.5	2*	3.5
1.6-2	2	3.5
2.1-2.4	10	17.5
2.5-3	34	59.6

3.1-3.5	10	17.5
Total	58	100

NB: * 1 twin delivery

Table VI: Young teenagers: birth weight <2.5 kg in relation to gestational age

S. No.	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
Gestational Age	32+3	?	36	35+4	33	31*	31	38	38	40**	40	? ***	37	40+4
Birth Wt in kg	1.4	2.4	2.4	2	2	1	2.1	2.4	2.3	2.3	2.2	2.3	2.4	2.3
1 & 5 min. Apgar	6-8	6-7	7-8	7-8	6-8	00*	6-10	7-8	7-9	6-8	5-8	3-6	7-8	7-9

* 1 twin (SB) ** Breech *** Eclampsia

Small for date; 6 (10.5%)

Preterm 6 (10.5%)

LMP Unknown 2 (3.5%)

Table VII: Young teenagers: low apgar n=4

S. No.	*Case Diagnosis*	*1 min*	*5 min*
1.	Cord Prolapse	0	3
2.	Eclampsia	3	6
3.	2 weeks post dated	4	6
4.	Twin pregnancy*	0	0

* There was one twin SB baby of 1 kg birthweight at 31 weeks of pregnancy.

Discussion

The incidence of young adolescent pregnancy per thousand deliveries comes to 20. Pregnancy at very young age demands special attention as there are a number of adolescent mothers observed in our study.

More important is the fact that three of these adolescent mothers were carrying their 2nd baby at such a tender age.

The usual documented complications like prematurity and low birthweight were seen in 16% and 24.5% respectively. Pregnancy complication like elampsia, which resulted in low birthweight baby with poor apgar, was also seen in one case.

Most of these young mothers had vaginal deliveries (86%) including a case of breech. Although the caesarean section rates 14%, only 3 (5.3%) had operative indications as CPD. This means still larger numbers could have been considered a choice for vaginal birth provided there was no foetal distress (3) and abnormal presentations (2).

CONCLUSION

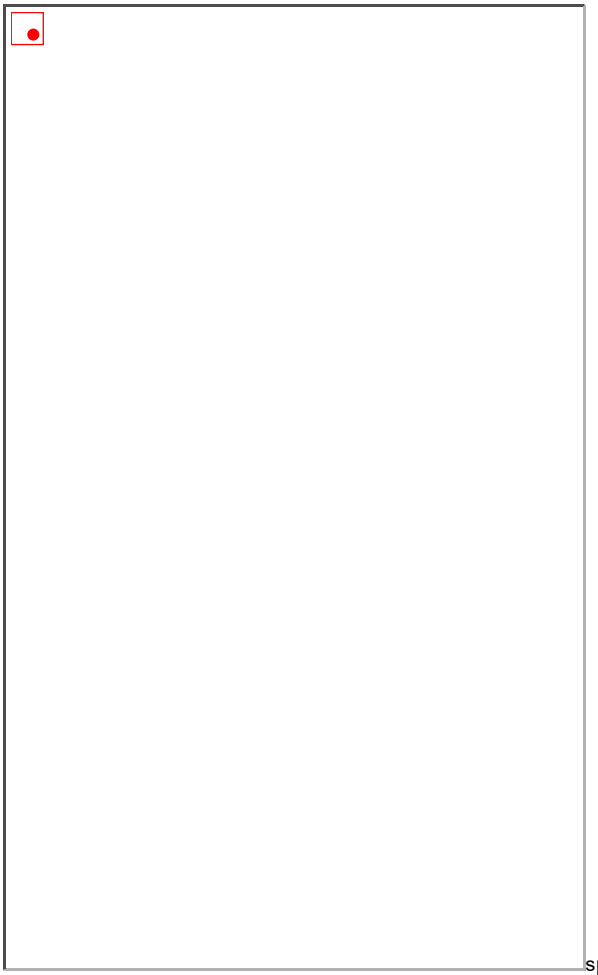
Excepting one case of pregnancy, which occurred in a 13 year old girl due to sexual abuse, all the other pregnancies followed after marriage, as expected.

Our observation concludes that preterm birth and low birthweight babies could also be avoided to some extent by preventing adolescent pregnancy. Complications pertaining to pregnancy and delivery like eclampsia, shoulder dystocia and post partum haemorrhage encountered in this small study magnifies the pregnancy-associated risk involved in these delicate mothers. This indicates that full attention
has yet to be focussed on adolescent reproductive health, directed towards preventing early marriage as well as early child bearing.

References

1. Birch D. School girl pregnancy in Camberwell. MD Thesis 1986, University of London.

2. Bury JK. Teenage pregnancy. *Br. J. Obstet Gynaecol* 1985, 92, 1081-5.

3. Center for Disease Control and Prevention. State  specific pregnancy and birth rates among teenagers, U.S. 1991-92. MMWR, **44**: 677, 1995a.

4. Ventura and Coworker. Advanced report of Final Natality statistics 1993. National Center for Health statistics, Monthly vital statistics report (suppl) 1995a, **44**: 3.

5. OPCS 1983, British Statistic England and Wales 1981, OPCS series FMI no. 10, HMSO, London.

6. Black D. School girl mothers. *BMJ* 1986, 293, 1047.

7. CDC and prevention: Abortion surveillance United States 1992. MMWR 1996.

8. Osbourne GK, Howat RCL, Jordan MM. The obstetric outcome of teenage pregnancy. *Br J of Obs Gyn* 1981, **88**: 215-221.

9. O' Brien MJ, Chang AMZ, Esler EJ. Antenatal care, obstetrics and neonatal outcome of teenage pregnancies. *Asia Oceanic J of Obs and Gyn* 1982, **8** (2): 163-168.

10. Utian WH. Obstetrical implications of pregnancies in primigravida aged 16 years or less. *BMJ* 1967, 174-6.

11. Lubarsky SL, Schif E, Friedman SA, Mercer BM, Sebai BM. Obstetric characteristics among nulliparas under age 15. *Obstet Gynaecol* 1994, **84**: 365.

12. Lewis. Pregnancy in-patient under 16 years. *BMJ* (I) 1967, 733-4.

13. Elliot HR, Beazley JM (1980). A clinical study of pregnancy in younger teenagers in Liverpool. *Br J of Obs and Gyn* 1980, **16**: 19.

14. James RE, Pre-menarchal pregnancy. *BMJ* 1969 I, 51.

15. Miller HS, Lesser KB, Reed KL. Adolescents and very low birth weight infants. A disproportionate associations. *Obstet Gynaecol* 1996:

87, 83.