

TEENAGE PREGNANCY†

by

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Teenage or adolescent pregnancy is a fairly common occurrence in India, but in the developed countries it has erupted into prominence due to the following factors. (1) The sudden rise of teenage population which was the aftermath of World War II; (2) Half the number of teenagers were females, reaching puberty at younger ages; (3) in the adolescent age group, specific fertility was on the increase, augmented by earlier marriage. Teenage pregnancy is exemplified by no less a person than Kasturba Gandhi who was married at the age of 13, delivering her first baby at the age of 15 and the second baby at the age of 17, which spurred Gandhiji to remark "Little did I dream that one day I should severely criticise my father for having married me as a child".

A study of teenage pregnant girls during pregnancy, labour and puerperium, admitted during the years 1972 and 1973 was done at Government Erskine Hospital. There were a total of 1631 deliveries, and the number of babies born were 1653. There were 22 pairs of twins, 8 molar pregnancies and 329 abortions giving a total of 1968 pregnancies. For the years 1972 and 1973, the total number of deliveries were 12,424. Hence the deliveries in teenage girls formed 13.1% of the total.

There were 8 molar pregnancies of which one occurred in a girl of 14 years, another in a girl of 15 years and 6 in girls of 18 years of age. Digital evacuation was done in 4 cases, vacuum aspiration in 3 and a hysterotomy was needed in 1 girl who was aged 18 years and the

TABLE I

Year	Total No. of deliveries	Babies	Vesicular mole	Abortions	Total No. of pregnancies
1972	876	885	4	169	1049
1973	755	768	4	160	919
	1631	1653	8	329	1968

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uterus was 24 weeks in size and the cervix was long and tubular and would not dilate with oxytocin drip. She was a primigravida.

As regards the marital status of these teenage pregnant girls, there were 2 unmarried girls who delivered at term.

There were 8 unmarried girls and 6 widowed women who had induced an abortion giving an incidence of 3.3%.

As regards the distribution, age and parity-wise, it could be seen that 85% of these teenagers were primigravidae, about 13.5% were primiparas and about 1.5% were secondparas. There were just 3 teenagers among 1639 who were fourth gravidae.

The incidence of abortions amongst 1968 pregnant teenagers was found to be 16.78% as opposed to 17.8% in the hospital admissions. There were a total of 329 abortions in this series. Of these 316 (96.7%) were spontaneous and 14 (3.3%) were induced. Of the induced abortions all were unmarried girls. It can be noted that 63% of them were in the age group 18-19 years.

The vast majority of the teenage pregnant girls belonged to the poor socio-economic group, 77% to the group where the income was less than Rs. 100 per month, in 22% the monthly income was Rs. 101-300 and in 2.14% the income was Rs. 301-500 per month.

The incidence of pre-eclampsia in the total deliveries at Government Erskine Hospital was 4.65% and the incidence of eclampsia was 2.2%. The incidence of pre-eclampsia in 1639 adolescent pregnancies was 7.87% and incidence of eclampsia was 4.85%. Battaglia *et al* (1963) noted the incidence of pre-eclampsia and eclampsia to be 29.2% in those below 15 years while the over-all clinic figure was 11.2%. The pre-eclampsia is generally of late onset and the babies born of these mothers generally enjoy a relatively good prognosis. The death rate is relatively low. This is because of the late onset of toxæmia and its not being superimposed on hypertensive vascular disease.

There were 19 severely anaemic girls (Hb. below 8 gms%) giving an incidence of 1.16%. The incidence of anaemia in the total deliveries was 15%. The incidence of anaemia in this series is comparatively very low. Hulka and Schaaf as quoted by Hassan and Falls (1964) noted an incidence of 20% of adolescent pregnant girls with anaemia. The type of anaemia noted in our series was of the microcytic hypochromic variety.

There were just 2 patients with rheumatic heart disease, one with mitral incompetence and one with mitral stenosis, thus giving an incidence of 0.12% amongst the teenagers. The incidence of cardiac disease complicating pregnancy in the total number of deliveries was 0.89%.

As regards the incidence of antepartum haemorrhage, abruptio placenta is much more common than placenta previa. The incidence in these 1639 cases was as follows:

	Present series	Hospital incidence
Placenta praevia	0.31%	2.07%
Accidental haemorrhage	0.98%	3.12%
Unclassified	0.55%	0.51%

All the cases of placenta praevia belonged to Type II anterior. Two cases of accidental haemorrhage belonged to Grade 0, 5 to grade I and 9 to grade II. Hassan and Falls (1964) quoted an incidence of 2.3% of antepartum haemorrhage in adolescents and 2.36% in the control group.

The incidence of twin pregnancies was 1.34% amongst these 1631 deliveries, whereas the hospital incidence was 2.38%. There were in toto 22 pairs of twins of which 14 were uniovular and 8 were binovular. There was 1 girl of 16 who delivered twins, 4 aged 17 and 17

girls aged 18 to 19 years who delivered twins. The presentations were both vertex in 11 deliveries, vertex and breech in 6 deliveries, both breech in 4 deliveries and breech and transverse lie in 1.

The incidence of cephalopelvic disproportion in this series was 2.6%. There were 44 cases, 15 with first degree disproportion and 27 with second degree disproportion. The age group of the pregnant girls with first degree disproportion was 16-19 years and the age group of those with second degree disproportion was 13-15 years. The incidence of cephalopelvic disproportion in the hospital deliveries was 6.8%. By clinical assessment there were 7 girls with small gynaecoid pelvis, 3 with android and 1 with anthropoid pelvis. Ballard and Gold (1971) have found a very high incidence of C.P.D. viz. 28.5% in 13 year olds and 60% in the 12 year olds. The dividing line between pelvic disproportion and adequacy seems to occur at the age of 14 or 15, according to Ballard and Gold. The adolescent above 15 who escaped toxæmia, anaemia and premature labour seems to enjoy a relatively benign obstetric course.

TABLE II
Complications

The following table lists the complications in pregnancy

Hydramnios	10
Postmaturity	6
Infective hepatitis	3
Hypertension	1
Nulliparous prolapse	1
Congenital elognation of cervix with previous amputation	1
T.B. meningitis	1
Caries spine	1
Hepatosplenomegaly	1
Chickenpox	1
Cortical venous thrombosis	1
Repeated abortions	1
Intrauterine death	15

The incidence of hydramnios in this series was 0.61%, whereas the general incidence in the hospital deliveries was 1.1%.

TABLE III
Duration of Labour in 1631 Cases

Within 24 hours	1336	(82.53%)
24-48 hours	263	(16.13%)
More than 48 hours	22	(1.34%)

Prolonged labour was mostly due to cephalopelvic disproportion and contracted pelvis which was undetected and uterine inertia was a second cause.

The multiparous teenager may have a labour of less than 3 hours duration. These findings have led to the dictum—"Beware of the teenager with the parous cervix" voiced by Semmens (1965) and the puzzling observation that a teenage labour is very short or very long. Hassan and Falls (1964) found the duration of labour to be the shortest in adolescents between the ages of 15 and 21 years. In our series 82% delivered within 24 hours. There were no cases where the duration of labour was less than 12 hours.

There were 188 premature labours giving an incidence of 11.5%. The following complications were met within the first and second stages of labour.

Complications	Number	Percentage
Hypotonic uterine inertia	80	4.8%
Cervical dystocia	5	0.3%
Hypertonic inertia	2	0.1%
Intrapartum sepsis	13	1.1%

There were no cases with lacerations of the cervix.

TABLE IV
Presentations

Presentation	No.	Percentage	Presentation	No.	Percentage
Vertex Anterior	1523	92.1%	Breech (Flexed)	33	2%
Vertex posterior	24	1.45%	Breech (Extended)	24	1.5%
Face	9	0.57%	Footling	9	0.57%
Glabellar	1	0.06%	Transverse lie	17	1.02%
Brow	1	0.06%	Compound	4	0.24%
Parietal	1	0.06%	Cord	7	0.42%

TABLE V
Type of Delivery

			Control Series
Labour natural	976 cases	59.03%	60.5%
Vacuum Extraction	344 cases	20.81%	11.9%
Outlet and low-mid cavity forceps	141 cases	8.53%	8.2%
Breech deliveries:			
Assisted	63 cases	3.81%	4.2%
Breech extraction	5 cases	0.30%	0.3%
Caesarean section	1 case	0.06%	0.2%
I.P. version & Extraction	7 cases	0.42%	0.6%
Craniotomy	8 cases	0.48%	0.5%
Caesarean section—total	100 cases	6.56%	9.7%
Lower segment	91 cases	6.02%	9.5%
Classical (Android pelvis)	1 case	0.06%	0.1%
Repeat lower segment caesarean section	8 cases	0.48%	1.5%

Rupture of the Uterus

The incidence was 0.49% whereas the hospital incidence was 1.24%. There were 6 cases of complete rupture of the uterus, 1 incomplete rupture and 1 colporrhexis. These 8 cases were admitted as emergencies and they were all cases with second degree disproportion. The 6 cases of complete rupture had to have the uterus sacrificed as the rent was too ragged. Hence sub-total hysterectomy had to be done. In the patient with incomplete rupture rent repair with sterilization was done. She had one living child and this rent was rather ragged. Hence she was sterilised. The patient with

colporrhexis had the rent repaired and she was not sterilised as she had no living baby.

Third stage complications were by and large few. There were 17 cases who needed manual removal of placenta (1.04%), 5 were retained due to atonic non-detachment and 12 because of morbid adherence. The incidence in the control series was 1.24%. There were 25 cases of atonic postpartum haemorrhage and 3 cases of traumatic postpartum haemorrhage giving an incidence of 0.11%. The general incidence was 1.1%. Hassan and Falls in their study had an incidence of 7% PPH in teenage group as compared with 3% for the control group.

Congenital abnormalities of the uterus were 10 in number viz., Arcuate uterus 6, bicornuate uterus 2, subseptate uterus 2, septate vagina 1. The incidence in this group was 0.67% whereas amongst the total hospital deliveries it was much lower viz., 0.27%.

Anomalies of the placenta and cord were as follows. There was 1 placenta succenturiata, 2 bilobed placentae, true knots of the cord in 2 placentae and there were 2 battledore insertions of the cord.

Outcome of Pregnancy: Prematurity rates are highest in the youngest patients. Poverty and under-nutrition are important factors operating. The birth weights of the babies that were born to these adolescent mothers are as follows:

Weight of the baby	No.	Percentage
Less than 2000 gms.	183	30.8%
2001—2499 gms.	321	
More than 2500 gms.	1140	68.9%
More than 4000 gms.	3	0.3%

The prematurity rate was 30.8%. In the control series it was 15.3%.

Foetal Anomalies: There is a greater incidence in adolescents and in women over 30. There were 3 babies with hydrocephalus, 2 with anencephalus, talipes equinovarus in 1 and hare-lip in 2. One anencephalic foetus was born to a mother aged 14 years and the remaining 7 malformed foetuses were born to girls between 18-19 years. The incidence of congenital anomalies was 0.48% in this series whereas the hospital incidence was 0.68%. This is not in conformity with the general impression.

Puerperal Complications: There were 30 cases of puerperal sepsis including infected episiotomy wounds. There were no cases of peritonitis.

Lactation: There were no cases of

breast abscess or mastitis noted in these 1639 mothers during their stay in hospital. On an average these young mothers were good lactators.

Perinatal Mortality: In this series it was 188 among 1653 total births giving an incidence of 115 per 1000. The incidence in the hospital series was 95.7 per 1000 births.

Maternal Mortality: There were 5 deaths in this series giving an incidence of 0.25%. There was 1 short primigravid girl of 18 years who had a failed forceps delivery in a neighbouring village and was referred as an emergency. Lower segment caesarean section was done as there was a major degree of cephalopelvic disproportion. The patient had intrapartum sepsis and she died on the second postoperative day due to septic shock. The second mortality was in a primigravid patient who had imminent eclampsia and was referred in prolonged labour and in an unconscious state. She had routine treatment for eclampsia but she passed away 12 hours after admission. Possibly the death was due to cerebral venous thrombosis. She died undelivered and no postmortem was done as the relatives were unwilling. The third mortality was in a 17 year old unbooked primigravid girl who had an anthropoid pelvis and had been in labour for nearly 48 hours. The lower segment caesarean section was done for an unengaged head in an occipito-posterior position and a baby weighing 3.9 kgs. was delivered. The patient died soon after the operation due to the obstetric shock.

There were 2 cases of septic induced abortion in unmarried girls who died of general peritonitis and endotoxic shock.

Conclusions

It gives one the impression that teenage mothers in Madurai District fare

better during pregnancy and labour than their counterparts in other parts of the world. The incidence of pre-eclampsia and prematurity is high in the adolescent pregnant girls in this area. No doubt these mothers being at greater risk required additional effort and resources to serve and protect the total health of the adolescent. Health and reproductive patterns established in these vulnerable and formative years, whether good or bad will have a lasting effect on the person's life.

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