

## "SIGNIFICANCE OF AGE IN PRIMIPARAE"

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It is said that youth is one of the greatest virtues which a child-bearing woman can possess. The problem of very young and elderly primiparae has been recognised for a long time. There is plenty of literature showing that there is higher incidence of eclampsia, pre-eclampsia and premature deliveries in teenage primiparae (Miller, 1932; Letitia Fairfield, 1940; Dutta, 1972). On the other hand, advanced age may impose a handicap upon her in pregnancy and labour (Denman, 1795; Stallworthy and Bourne 1966; Dutta, 1972).

Considering prevalence of early marriage and meagre antenatal and intranatal care in our area, an attempt is made to find out the obstetrical risks in different age groups in first birth and to screen out those found risky for better care.

The present study was conducted at A.G. Hospital, Bikaner (Rajasthan). All the primiparae delivered from 1976-77 were included in the series and were divided into various groups according to the age as follows:

Group A, less than 20 years of age (teenagers)

Group B. 20-25 years of age

Group C. 26 years and above (elderly)

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During the period 1976-77, out of total 1860 deliveries there were 390 first births which have been analysed.

### Observations and Results

Out of total number of deliveries in 1976-77—390 were primiparae making incidence of 20.96%. Maximum number of primiparae delivered were between 20-25 years of age making 61.53% of all the primiparae.

Complications associated with pregnancy.

TABLE I A  
*Toxaemia of Pregnancy in Various Age Groups*

Group	Total No. of cases	No. of toxemia mothers	Percentage
A	84	30	35.7%
B	240	54	22.5%
C	66	20	33.33%

Pre-eclampsia is one of the frequent complications in primigravidae. In the present series, the incidence of toxemia was 26.66%.

In teenagers, 35.75% of the mothers were toxemic, showing highest incidence of toxemia and again with increasing age of primigravidae, the incidence increases.

Above findings show that eclampsia was more common in teenagers and severe pre-eclampsia was more common among elderly primigravidae.

TABLE I B

Cases of Toxaemia and Eclampsia According to Severity of Disease in Various Age Groups

Group	% of cases with blood pressure more than 90 mmHg	% of cases with blood pressure more than 110 mmHg	% of cases with eclampsia
A	19.05%	8.33%	8.33%
B	19.64	2.05%	0.81%
C	15.6%	17.73%	—

TABLE I C

Complications According to Age Group

Complication	Groups			Total primiparae
	A	B	C	
Anaemia	47.61%	45.8%	45.49%	40.15%
Hydramnion	—	0.41%	—	0.25%
Heart disease	—	—	1.56%	0.25%
Antepartum haemorrhage:				
a. Abruptio placenta	1.19%	—	3.12%	0.15%
b. Placenta previa	1.19%	0.41%	—	
c. Unclassified	—	—	1.56%	
Premature deliveries	14.28%	6.66%	7.57%	8.54%
Multiple Pregnancy	—	0.83%	3.03%	1.00%

There was no significant difference in percentage of anaemia. There was only 1 case each of hydramnion and heart disease. Abruptio placenta was more in elderly age group. Premature deliveries were highest in teenager primiparae.

Occipito-posterior presentation was slightly more common in primigravidae of A and C groups than group B. Again face and breech presentations are more common in teenagers and the elderly.

Among 390 primiparae 62.82% had normal labour, 37.18% had abnormal labour. 25.64% were forceps deliveries and 4.6% were delivered by caesarean section.

Maximum number of cases had forceps delivery in elderly primiparae.

There was a staircase rise in the incidence of caesarean section as age advances; in elderly primiparae it was double that in teenagers.

TABLE II  
Presentations in Various Age Groups

Group	VERTEX			Face	Brow	Breech	Trans-verse lie	Lie not made out
	Anterior	Transverse	Post.					
A	52.38%	29.76%	5.95%	1.19%	—	10.71%	—	—
B	57.5%	28.33%	4.16%	—	0.41%	4.16%	1.25	4.16%
C	60.66%	22.72%	6.06%	1.51%	—	9.09%	—	—



TABLE III B  
Mode of Delivery in 390 Primiparae

	Total No. of cases	Percentage
1. Normal delivery	245	62.82%
2. Breech delivery	24	6.15%
3. Forceps delivery	100	25.64%
4. Caesarian section	18	4.6%
5. Internal podalic version	1	0.25%
6. Breech extraction	1	0.25%
7. Craniotomy	1	0.25%

TABLE III B  
Forceps Delivery in Various Age Group

Group	Type of forceps application		Midcavity with manual rotation
	Outlet	Low midcavity	
A	8.33	13.09	1.19
B	10	12.94	10.24
C	13.63	12.69	30.33

TABLE III C  
Incidence of Caesarian Section in Various Age Groups

Group	Percentage	Indications
A	3.57%	Eclampsia, placenta previa, contracted pelvis.
B	6.25%	Transverselie, Breech, Fetal distress, cord prolapse, brow.
C	7.57%	P.E.T. Fetal distress, prolonged labour.

TABLE IV  
Mean Duration of Labour in Hours in Various Age Group

A	12.5 hours
B	13.5 hours
C	30.6 hours

There was prolonged labour in elderly primipara.

TABLE V  
Third Stage Complications

Group	Postpartum haemorrhage	Manual removal or placenta	Inversion of uterus
A	1.19%	—	—
B	2.73%	0.91%	0.91%
C	4.50%	1.5%	—

Incidence of postpartum haemorrhage was more with advancing age and also advancing age group required more manual removal of placenta.

TABLE VI  
Weight of Baby in Various Age Groups

Group	Weight upto 1.99 Kg	Weight 2 Kg-2.99 Kg	Weight 3 Kg & above
A	14.28%	69.02%	4.76%
B	10%	88.33%	7.5%
C	12.12%	59.09%	13.63%

Weight of baby increases with increase in age of primigravidae.

TABLE VIII  
Prenatal Mortality

Group	Still birth		Neonatal death	Total
	Fresh	Old		
A	2.38%	1.19%	4.76%	8.33%
B	0.83%	0.41%	4.16%	5.40%
C	1.5%	3.03%	9.00%	13.53%

There was increase in perinatal mortality in very young primiparae, highest rate was in the elderly group and was lowest in 20-25 years aged primiparae.

There was only one maternal death of 24 years old primiparae due to acute inversion of uterus, she delivered at home and brought to hospital with acute inversion of uterus.

#### Discussions

In the present series, most of the primipara delivered before the age of 26 years (82.86%). Only 16.97% of primiparae were at or above 25 years and 25% of cases had their first child at or below 17 years. According to Dutta (1972), a woman over 26 years should be labelled as an elderly primigravida in India, as pregnancy is much more common in younger age group in India than in European countries, where above 30 years has been considered risky by Stallworthy and Bourne (1966). We also agree with

Dutta as 82.66% primiparae were below 26 years age group and high incidence of complications in elderly primiparae.

Toxaemia is the disease of primigravida (Walker *et al* 1976). In our teenaged primiparae, incidence of toxaemia was high (35.17%). Sner and Utian (1970) also observed high incidence of toxaemia in teenagers. In elderly primigravidae in the present study, toxaemia was 33.33%. Nixon (1931) reported that toxaemia was three times more common in elderly primigravidae in comparison to young ones. It is because of increasing age which favours hypertensive diseases and reduces the resilience of the system as a whole.

46.15% primiparae were having haemoglobin less than 10.4 gm%. In antepartum hemorrhage, there was slightly higher incidence of abruptio placenta in the elderly group. The same was reported by Donald (1974).

Premature deliveries were doubled in teenaged primiparae 14.28% when



compared with 20-25 years primiparae group 6.66%.

In respect of presentations, incidence of occipito-posterior presentation was 5.95%, 4.16% and 6.06% in A, B and C group respectively. Face and breech presentations were more seen in teenaged and elderly primiparae. Same was reported by Nixon (1931).

Walker *et al* (1976) stated that difficult labour and need for operative delivery in primiparae is 20% as against the mother who had one or two vaginal deliveries 5% or less. In present study, 31.02% primiparae needed operative measures. Incidence for forceps delivery was highest in elderly group as shown in Table III. (Miller 1931-32; Nixon 1931; Devis and Seski, 1948; Dutta 1972). Incidence of caesarean section was 4.5% among all the 390 primiparae, two times increase (7.5%) incidences in elderly age in comparison to teenagers (3.57%). According to Donald (1974) rate of Caesarean section increased to four times in elderly primiparae.

In teenaged group there was less frequency of prolonged labour. This also

explains the low incidence of operative delivery. Prolonged labour was seen in elderly group as shown in Table IV. Same was observed by Schulze (1929), Quigley (1931), Devis and Seski (1948). In present study 2 cases in elderly group required manual removal of placenta. Donald (1974) stated that elderly primiparae frequently require manual removal of placenta.

Among 390 primiparae (0.25%) there was only 1 maternal death due to acute inversion of uterus in a case of home delivery. Total perinatal mortality was 18.86% as shown in Table VII. It was lowest in group B and highest in elderly primiparae. The fact that the babies of elderly primiparae are less able to withstand the stress of even normal labour, operative interference, prolonged labour and prematurity due to toxæmia are contributing factor for high perinatal loss. High perinatal loss was also reported by Miller (1932), Heady *et al* (1955) Donald (1974) and Dutta (1972). Slight increased perinatal mortality in teenage group is the result of neglect in antenatal and intranatal care and prematurity.