

## PREGNANCY AFTER 30

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### SUMMARY

Pregnancy and its outcome of one hundred and fifty one elderly gravidas (30 years or more) was compared to that of 152 younger controls. Incidence of Hypertensive disorders of pregnancy, antepartum haemorrhage, preterm delivery, caesarean delivery were statistically significant in the elderly group. Perinatal outcome in the elderly mothers was below average with statistically raised perinatal mortality of 130/1000 births. While antenatal & intrapartum complications were major causes of poor perinatal outcome, most of them could have been prevented with proper antenatal care. With good antenatal care and active management of labour gravidas giving birth at their later 3rd or 4th decade should fare well.

### INTRODUCTION :

Reproductive function in a female has a short period of optimal efficiency; a woman is obstetrically old, before she is chronologically old. How old is old? Different authors would opine differently depending upon the age pyramid of the gravid women in their respective institution or community. In India the average age of marriage is 15-18 years (Parthasarathy 1973) & most of them complete their families by the first half of their twenties. Therefore a mother at or above 30 years could be considered obstetrically elderly. Childbearing in the twilight of the reproductive period (Davis 1948) is considered by many to be as high risk. This study was done to analyse the effect of age (30 years or more) on the

outcome of pregnancy.

### MATERIALS & METHOD :

The study was carried out in the obstetrics and gynaecology department of K.G.'s Medical College, Lucknow from April 1990 to March 1991 extending for a period of 12 months. An estimated 151 cases delivered in this hospital during that tenure were selected at random after fulfilment of the following criteria :-

- i. Age :- Those gravid women delivered in this hospital who were 30 years or over by age were taken into account.
- ii. Obstetric History :- All patients were included irrespective of the past obstetric & past medical history.
- iii. Cases above 28 weeks of gestation only were included.

One hundred & fifty one elderly gravidas gave birth to 152 neonates. Antenatal, labour &

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perinatal complications were compared to 152 younger controls. **DISCUSSION:**

Our results are shown in following tables : **Antenatal complications : - The risk of health**

### RESULTS

TABLE - I

Parity Distribution				
Parity	Study Group	%	Control	%
P1 (primiparas)	18	12%	21	13.8%
P2 - P4 (Multiparas)	118	78.6 %	130	85.52%
P5 - above (Grand multiparas)	15	10%	1	0.65%

$K^2 = 13.058$ , D. F = 2, P < 0.05

Parity increases with increasing age. The low incidence of elderly primiparas is due to our social customs of early marriage.

TABLE - II

### Hypertensive Disorders of Pregnancy

Parity	Study Group	%	Control	%
Essential Hypertension	12	7.94%	4	2.63%
Essential Hypertension with superimposed preeclampsia	2	1.32%	—	—
Hypertension without proteinuria	2	1.32%	—	—
Preeclampsia	13	8.60%	6	3.94%
Eclampsia	2	1.32%	5	3.28%
Peripartum hypertension	6	3.94%	5	3.28%
Total cases of HDP	37	24.50% *	20	13.15%

\*  $\chi^2$  with continuity correction factor 5.663  
D. F - 1 p value < 0.05

The incidence of hypertensive disorders of pregnancy was statistically increased ( $p < 0.05$ ). Association of hypertension with advanced age is well known and the present study only confirms this fact.



**ANTEPARTUM HAEMORRHAGE**

**TABLE - III**

**Comparison of Various types of Antepartum Haemorrhage in Study and Control Groups**

A. P. H.	Study Group	%	Control Group	%
* Placenta praevia	4	2.64%	1	0.65%
a) Minor degree (Type I & Type II anterior)	2			
b) Major degree (Type II posterior & Type III)	2			
* Abruptio Placentae	2	1.32%		

\* Fisher exact test. P < 0.05.

The age of the patient. would have a role in in causation and abruptio placentae.

**TABLE - IV**

**Preterm Delivery**

Causes	Study	Control
1. Preterm labour	25	13
2. P. R. O. M.	9	12
3. Other indications (inductions)	11	4
- Essential hypertension with superimposed pre-eclampsia		1
- Eclampsia		1
- Pre-eclampsia	4	2
- Essential hypertension	3	1
- Diabetes mellitus	1	
- Placenta praevia	1	
- Abruptio placentae	1	
	45	29

\* Chi square without continuity correction factor = 4.424 P < 0.05

45 (29.08%) cases out of 151 elderly gravidas in contrast to 29 cases (19.07%) of control group were delivered preterm (Table IV). The higher incidence (Statistically significant p << 0.05) of preterm delivery can be explained on the basis of higher incidence of preterm labour and of medical complications in the study group.

Another important cause of preterm delivery is active management of patients with preterm PROM.

MODE OF DELIVERY

TABLE - V

Mode of delivery in the Elderly Group in comparison with the Control Group

Delivery procedure	Study Group	%	Control Group	%
Spontaneous Vaginal	76	50.33%	120	78.94%
Caesarean Sections	41*	27.15%	11*	7.23%
a) Emergency	31		8	
b) Elective	9		3	
Caesarean Hysterectomy	1			
Forceps Delivery	32	21.19%	19	12.15%
Destructive procedure	2		2	
Craniotomy	1		1	
Evisceration	1		1	

\* Chi square with continuity correction factor = 19.756 P &lt; 0.05, D. F. = 1.

PERINATAL OUTCOME

TABLE - VI

Perinatal Risks in Infants of Elderly Gravida in comparison with the Control Group

Disorders	Infants of women aged 30 yrs. & above		Infants of women between 20-29 yrs	
	No.	%	No.	%
Preterm babies	43 *	28.28	27*	17.64
Growth retarded babies	22	14.47	14	9.15
Congenital Anamolies	3	1.97	1	0.65
- Conjoined twins	1			
- Anencephaly				
Still births	10		6	
Early Neonatal deaths (within 7 days of birth)	10		3	
Perinatal Mortality (deaths/1000 infants)		131.57**		58.82**

\* Two neonates were preterm &amp; growth retarded. They are included with growth retarded babies.

\*\* Chi - Square with continuity factor = 3.853 p &lt; 0.05. D. F. = 1.



**PREGNANCY OUTCOME IN LOW SOCIO-ECONOMIC GROUP**  
(Monthly Income less than Rs One thousand)

TABLE - VII

Total Number of Cases from Low Socio-economic Group = 87

Pregnancy complications	No.	Labour	No.	Delivery	SBR	Perinatal
Preterm labour	17	Obstructed labour	4	LSCS	20	8 + 8 = 16
Heart failure	3	Uterine inversion	1	Forceps	18	
Hypertensive disorders of pregnancy	13	Primary PPH	2	Vag.	49	
Late pregnancy bleeding	2	Ruptured uterus	1			

and life to both mother and child increases with increase of parity as well as age. Age and parity being an interrelated duo, age alone can be a high risk factor irrespective of parity. Although there was no statically significant difference in the incidence of toxæmia in the study and control group, the higher incidence of hypertensive disorders of pregnancy as a whole was statistically significant.

Two cases (1.32%) as compared to none in the control group suffered from class A diabetes. The incidence (3.97%) of antepartum hæmorrhage was increased in study group (Fisher exact probability  $p < 0.05$ ). Absence of any case abruptio placentæ in the control group may be due to the lower incidence of hypertension pre-eclampsia, eclampsia and other contributing factors like higher parity. Although placenta prævia rises with multiparity and with advancing age but which of these two is more important is arguable.

Of the elderly gravidas 29.08% were delivered preterm in contrast to 19.07% of the controls. The difference was statistically significant ( $p < 0.05$ ) and the major cause of preterm delivery was preterm labour. The greater number of

pregnancy complications in the elderly gravidas were consistent with the significant rise in the incidence of preterm delivery.

**Labour Complications :-** The average duration of labour in the study group did not differ significantly from that of the control group. However the spontaneous vaginal delivery rate in the study group was 50.3% compared to 78.94% in the control ( $p < 0.05$ ). Caesarean section rate (27.15%) was almost four times higher in the elderly gravidas than in the control group ( $p < 0.05$ ). The commonest indication for caesarean section was failed induction. However, the higher incidence of section observed in the present study was due to increased incidence of complications of pregnancy and labour in the elderly group.

**Perinatal Complications :-** There was a statistically significant increased incidence of low birth weight babies, (birth weight less than 2500 gms.) in the study group. Although birth weight increases with parity, other factors such as anaemia, pre-eclampsia, ante partum

haemorrhage and preterm labour combined to exert a negative influence on the birth weight. Of 22 growth retarded babies, hypertensive disorders of pregnancy was identified as a major risk factor in 50% of the babies. While majority had low birth weight 3 had birth weight of 2500 gms.

The perinatal mortality (130/1000 births) rate was significantly raised ( $p < 0.05$ ) when compared to the control group. (58/1000 births) Twenty perinatal deaths included 10 still births and 10 early neonatal deaths. When compared with the control group, increased early neonatal loss was mainly responsible for increased PMR in the study group and the majority of the perinatal deaths were potentially preventable had there been adequate antenatal attendance.

Three mothers of the study group were lost while there was one death in the control group. The causes were rupture of uterus with shock, eclampsia with coma and uterine inversion. In the control group, one mother died due to complication of eclampsia. All deaths could have been prevented.

Elderly gravidas from low socioeconomic class (Table VI) constituted a high risk group. Almost all labour complications in these patients could have been prevented with proper antenatal care. The perinatal outcome was compromised and 16 out of 20 perinatal deaths were from this group. It was not surprising to find that two of the three maternal deaths were from this group.

Our results are in consistent with those of Dutta (1972), Biggs (1973), Kajanoja & Widholm (1978) Kirz and Freeman (1985) Martel et al (1987).

### CONCLUSIONS :

Since this institution caters mostly to the rural and semiurban population bulk of the gravidas of the present series were illiterate & poor. Ignorance and poverty, are again responsible for higher parity and therefore the higher incidence of elderly gravidas. Health education, better mother and child health care in the periphery and economic upliftment are the principal factors to break this vicious cycle. Health policy, mobilization of resources and government planning should take these factors into account to change the prevailing scenario in rural India. Of course, contraceptive practice in these groups has a long way to go and effective penetration of family planning methods can only be done after proper education.

This being so with good antenatal care and active management of labour there is no reason why, obstetrically speaking, a woman giving birth at later third or fourth decade of her life, should not fare well.

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