

The Elderly Nullipara - Outcome

J. Mukherjee • J. Roy Chowdhury

Dept. of G. & O., N.R.S. Medical College, Calcutta.

Summary: The pregnancy outcome especially period of gestation, antenatal complications, labour outcome, mode of deliveries, perinatal results have been critically analysed amongst the elderly nulliparous mothers and compared with the young mothers during 2 years between January, 1992 to December, 1993 at two leading Medical Colleges in Calcutta. The study reveals elderly mothers suffered from more antenatal & intranatal complications, had higher caesarean section rates & slightly higher perinatal mortality figures.

Introduction

The question of whether women who delay childbearing are at increased risk of having an adverse outcome of pregnancy is of growing concern because of the burgeoning proportion of first births to elderly women. Between 1974 & 1993, the proportion of first births has increased from 2.45% to 3.35% among women above 30 years. These trends are likely to continue. The pursuit of educational & career goal and later marriages have been contributory factors. This study was undertaken to examine whether the elderly nullipara have increased rates of pregnancy complications than younger primiparous women.

Materials & Methods

The study population consisted of 530 consecutive primigravidae aged 30 years or more who delivered at Eden Hospital, Medical College, Calcutta from January, 1992 to May, 1993 & N.R.S. Medical College Hospital from June, 1993 to December, 1993. The pregnancy outcome especially mode of delivery and perinatal results have been analysed & compared amongst the elderly and young primi patients during the said period.

Results & Analysis

The study reveals 53% elderly mothers had elective admission and the rest were admitted through emergency. Young mothers had 38% elective admission.

Table I reveals 80.4% elderly mothers carried pregnancy to 37 to 40 weeks in comparison to 27.2% amongst the young mothers.

Table I
Period of Gestation

| | Elderly | | Young | |
|-----------------|---------|----------|-------|---------|
| | No. | %age | No. | %age |
| 28-32 Wks: | 15 | (2.83%) | 3 | (0.6%) |
| 33-36 Wks : | 41 | (7.8%) | 13 | (2.6%) |
| 37-40 Wks: | 427 | (80.48%) | 348 | (69.6%) |
| Beyond 40 Wks : | 47 | (8.89%) | 136 | (27.6%) |

Table II: Hypertension, diabetes, fibroids, are more commonly associated with pregnancy in elderly patients in comparison to young mothers.

Table II
ANC Complications

| | Elderly | | Young | |
|--|---------|---------|-------|--------|
| | No. | %age | No. | %age |
| Hypertension | 55 | (10.3%) | 38 | (7.6%) |
| Diabetes | 12 | (2.3%) | 4 | (0.8%) |
| Twins | 7 | (1.3%) | 5 | (1%) |
| A.P.H. | 24 | (4.5%) | 18 | (3.6%) |
| Fibroids (Detected Clinically & at C.S.) | 10 | (1.9%) | 0 | |

Table - III shows high incidence of elective CS(39.1%) in elderly mothers in comparison to young mothers (12.2%). Spontaneous labour was allowed in only 56%

elderly patients whereas young mothers had 82% spontaneous labours. Induction rate, is however, similar in the 2 groups. Duration of labour was not computed due to bias for early CS in the elderly group.

Table - III
Onset of Labour

| | Elderly | | Young | |
|----------------|---------|---------|-------|---------|
| | No. | % age | No. | %age |
| Spontaneous | 297 | (56%) | 412 | (82.4%) |
| Induced Labour | 26 | (4.9%) | 27 | (5.4%) |
| Elective CS | 207 | (39.1%) | 61 | (12.2%) |

Table - IV
Mode of Delivery

| | Elderly | | Young | |
|-----------------|---------|----------|-------|---------|
| | No. | %age | No. | %age |
| Normal Delivery | 128 | (24.07%) | 322 | (64.4%) |
| Forceps | 72 | (13.62%) | 37 | (7.4%) |
| Ventouse | 0 | | 2 | (0.4%) |
| Breech | 4 | (0.75%) | 4 | (0.8%) |
| LSCS | 326 | (61.56%) | 133 | (26.6%) |
| Craniotomy | 0 | | 2 | (0.4%) |

Table-IV 64.4% young mothers had normal delivery whereas only 24.07% elderly mothers were delivered normally. Total incidence of C.S. is 61.5% in elderly mothers in comparison to 26.6% in young mothers. Out of CS cases, 39.1% Elderly mothers had elective CS and 22.4% had emergency CS. In case of young mothers studied, 12.2% had elective and 14.8% had emergency CS. Amongst the elderly elective CS group Elderly primi itself accounts for 48.1% of indications followed by PIH 22.7%, and Failed induction (7.7%). Amongst the emergency CS groups PROM (39.5%), non-progress (31.1%) and fetal distress (17.7%) stand out to be main indications.

Table-V: 51% elderly mothers had babies with birthweight of 2.5 to 3 Kg. Only 13.8% had baby's birth weight more than 3.0 kg. in comparison to 22.6% amongst young mothers. There were 98 cases of IUGR babies

born beyond 37 weeks amongst the elderly mothers, an incidence of 18.4%.

The overall perinatal deaths show a slightly higher figure with increased risk of IUFD (53%) in the elderly group. (Table VI).

Table V
Birth Weight

| | Elderly | | Young | |
|--------------|---------|----------|-------|---------|
| <2.5 Kg. | 183 | (34.56%) | 168 | (33.6%) |
| 2.5 to 3 Kg. | 273 | (61.56%) | 219 | (43.8%) |
| 3 Kg. | 74 | (13.88%) | 113 | (22.6%) |

Table - VI
Perinatal Mortality

| | Elderly | Control |
|--------------------------|---------|---------|
| IUFD | 35 | 22 |
| Early neonatal Death | 31 | 34 |
| Perinatal Mortality rate | 124.5 | 111.11 |

Discussion

The incidence of pregnancy complications & adverse outcomes are higher in the elderly nullipara. (Tuck, et al 1988). Prolonged antepartum hospitalisations are twice as common (Cunningham et al 1997) - in our series the elderly group had more elective admissions. Cnattingius et al (1992) reported a higher incidence of preterm deliveries: 1.1% < 32, & 5.4% < 36 weeks. In our series 2.83% were born between 28-32 weeks & 7.8% were born between 33-36 weeks. Overall, births before 36 weeks occurred more than thrice as often in the elderly group compared to their younger counterpart. Prysac et. al. (1995) have reported similar findings.

The incidence of hypertensive disorders, diabetes, fibroids and antepartum haemorrhage were all greater in the elderly patients. Several studies report hypertension complicating 10-20% of pregnancies in women over 35 years (Lehmann & Chism, 1987; Yasin & Beydoun, 1988). The incidence of hypertensive disorders was 10.3% in the older patients in our series. Diabetes is 2 to

3 times more common in older women compared to those of 20-25 years (Mestman 1980, Kirz et. Al. 1985); in the present series diabetes is thrice as common in the elderly nullipara.

Antepartum haemorrhage is more frequent in elderly patients (Hansen 1985). Allahabadia et. al. (1994) reported 2.52% abruptio placentae & 0.94% placenta praevia in elderly primi-gravidae. The overall incidence of A.P.H. of 4.5% in elderly is slightly greater in the present series.

The incidence of caesarean delivery in elderly nullipara has been consistently higher. (Adashek et. al. 1993, Edge & Laros 1993, Peipert & Bracken 1993). Apart from antepartum complications & dysfunctional labour, physician & patient concern for pregnancy outcome in these women may be aetiological. This is evident from elderly nullipara per se being an indication for almost half of elective sections in our study. Elective caesarean sections (39.1%) outnumber the emergency section group (22.4%) in the present series. Berkowitz et. al. (1990) found no increase in the frequency of any specific indication of Caesarean Section except more elective sections. The incidence of forceps deliveries, in the elderly group was nearly double that in the younger counterpart. Allahabadia et. al. (1994) reported spontaneous vaginal deliveries in 72% of elderly primi gravidae compared to 81% in the younger age groups. Our spontaneous delivery rates were only 24% in the elderly compared to 64% in the younger patients.

The perinatal mortality in the elderly nulliparae in the present series (125/1000) is marginally higher compared to the younger subjects (111/1000). This occurred in spite of better educational status & more compliance with antenatal care in the older age group. Intra-uterine fetal deaths were more common in the advanced age groups. A higher frequency of fetal deaths with increased maternal age among primiparas has been reported. (Kane 1967, Kessler et. al. 1980), Kiely et. al. (1986) found that the increased risk was limited to fetal death before labour. Our reports were similar.

Conclusion

This study suggests that the elderly nullipara has higher rates of complications of pregnancy and delivery. The perinatal mortality is only slightly higher in the hospital population that we studied. The message is one of cautious optimism.

References

1. Adashek JA, Peaceman AM, Lopez-Zeno JA, Minogue JP, Socol ML : Am. J. Obstet Gynaecol, 169, 939, 1993.
2. Allahabadia G, Vaidya P, Ambiye VR: J Ind. Med. Assoc. 92 : 5,144, 1994.
3. Berkowitz GS, Skovron ML, P.H. Dr. Lapinski R. H., Berkowitz RL: N. Eng J Med 332, 659, 1990.
4. Cnattingius S, Forman MR, Berendes HW, Isotalol; JAMA, 268, 886, 1992.
5. Cunningham F4, MacDonald PC, Gant NF, Leveno KJ, Gilstrap LC, Hankins GDV, Clark SL : William's Obstetrics. 20th Ed. P.569., Appleton and Large, Connecticut 1997.
6. Edge V. Laros RK. Jr. Am J Obstet Gynecol 168, 11881, 1993.
7. Hansen JP Obstet Gynecol Survey 41, 726, 1986.
8. Kane SH. Obstet Gynecol 29, 409, 1967.
9. Kessler I, Lancet M, Borenstein R, Steimetz: A. Obstet Gynecol 56, 165, 1980.
10. Kiely JL, Paneth N, Suser M, Am J. Epidemiol; 123, 444, 1986.
11. Kirz DS, Dorchester W, Freeman RK. Am J. Obstet Gynecol 152, 7, 1985.
12. Lehmann DK, Chism J : Am J. Obstet Gynecol 157, 738, 1987.
13. Mestman JH : Diabetes Care 3, 447, 1980.
14. Peipert JF, Bracken MB. Obstet Gynaecol 81, 200, 1993.
15. Prysak M, Lorenz RP, Kisty A : Obstet Gynaecol, 85, 65, 1995.
16. Tuck SM, Yudkin PL, Turnbull AC: Br. J Obstet Gynaecol 95;230, 1988.
17. Yasin SY, Beydoun SN : J. Repro. Med. 33, 209, 1988.