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INFLUENCE OF ADVANCED MATERNAL ON OBSTETRIC PERFORMANCE OF PREGNANT WOMEN ATTENDING GENERAL HOSPITAL CALABAR

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ABSTRACT

Elderly women are faced with obstetric risks with poor neonatal outcomes. Based on this assumption, this retrospective study aims at determining the influence of advanced maternal age on the obstetric performance of pregnant women. The records of deliveries in General Hospital, Calabar from January 2003 to December 2005 was therefore reviewed using a checklist. A total of seventy one (71) cases, aged 40years and above who received obstetric care during this period were studied. Data was analyzed using both descriptive and inferential statistics. Findings showed that 44(62%) of the subjects developed hypertension in pregnancy while 27(38%) did not; 45(63.4%) delivered by caesarean section while 26(36.6%) had normal vaginal delivery Foetal and neonatal mortality revealed that 16(22.5%) of cases resulted in intra-uterine deaths (fresh still births) included, and 55(77.5%) life births. Findings revealed a significant relationship between advanced maternal age and hypertension in pregnancy (X^2 cal= 29.8, df 2> critical x^2 = 5.991.). There is also significant relationship between maternal age and delivery by caesarean section (x^2 cal = 30.9; df = 2> critical x^2 = 5.991). There is significant relationship between advanced maternal age, foetal and neonatal mortality (x^2 cal =65.2; df = 2>critical x^2 = 5.991). Based on findings, special antenatal care for pregnant women aged 40years and above was recommended.

KEYWORDS: Advanced maternal age, obstetric performance, pregnant women

INTRODUCTION

The confluence of number of social and demographic trends for the past two decades had resulted in an increasing number of women becoming pregnant relatively late in their reproductive life. Pregnant women older than 35years have been referred to as of “advanced maternal age” or specifically as the “elderly” or mature pregnant women (Kirz, Dorchester and Freeman, 1995).

Traditionally, these women are believed to have more adverse pregnancy outcomes than younger pregnant women. Edge and Laros (1993) reported that the outcome of pregnancy among group of mothers aged greater than 35years are similar to those of mothers of younger age. This finding constitutes a challenge to the current definition of advanced maternal age which uses 35years as the cut-off reference point.

It has also been recorded that mothers aged 40years and above, rather, are the group that exhibit significant differences in early pregnancy loss, genetic disorders, Diabetes mellitus, ante-partum haemorrhage, preterm delivery and caesareans section deliveries. Adverse foetal and neonatal outcomes have been reported. The available data suggests that the risks begin to accelerate after the age of 35years and become considerably greater and increase more rapidly after the age of 40years (Ventura, martin, and Curtin 1995). It may therefore be more appropriate for the delineation of a readily – risk group by increasing the cut-off to 40years in the definition of advanced maternal age.

In spite of all the above reports, the researchers have observed that the incidence of elderly women reporting to the labour wards for

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delivery has increased in recent times. This may not be unconnected with late marriages largely due to education or career pursuit, socio-cultural pattern, which has come with modernization; attitude of many matured women towards choice of life partner.

Though numerous risks have been associated with obstetric performance of women of advanced age, it is presumed that an older woman who was healthy before pregnancy can reasonably expect a healthy pregnancy if she received appropriate antenatal care. By implication, a woman who received adequate antenatal and intra-natal care will have an uneventful pregnancy and labour outcome.

This study therefore aims at investigating the influence of advanced maternal age on the obstetric performance of pregnant women.

Findings will first, authenticate the reports on the risks associated with pregnancy at an older age. Secondly, the results obtained will guide nurses and midwives to evolve more efficient actions to put in place in safeguarding such associated risks.

Materials and Methods

A retrospective descriptive design was used to study the influence of advanced maternal age on obstetric performance of pregnant women who attended General Hospital, Calabar from January 2003 to December, 2005.

Records of pregnant women who attended the hospital totaling 1,231 was reviewed and the case notes of 71 mothers aged 40years and above were retrieved after due ethical consideration. The case notes of the subjects were reviewed using a checklist consisting of age, history of labour, month and year of delivery. Data collected were analyzed using descriptive statistics of frequencies and percentages; and inferential statistics of chi-square test.

Results

Table 1: Socio-demographic characteristics (n=71)

Variables	Frequency	Percentages
Age		
40 – 44	67	94.4
45 – 49	3	4.2
50 and above	1	1.4
Parity		
Primipara	5	7.0
Multipara	66	93.3
Occupation		
Student	2	2.8
Housewife	4	5.6
Farming	2	2.8
Trading/business	15	21.1
Self-employed	6	8.5
Civil-servant	42	59.2
Educational Background		
Non-formal	5	7.0
Primary	7	9.9
Post-primary	10	14.1
Tertiary	49	69.0

The socio-demographic data of selected cases showed that many of them, 67 (94.4%) were within the age of 40-44; 3(4.2%) and 1(1.4%) fell within 45-49 years and 50 years and above respectively. In terms of parity, 5(7.0%) were primiparae while 66(93.0%) were multiparae.

By occupation 2(2.8%) of cases were students, 4(5.6%) housewives 2(2.8%) were farmers, 15(21.1%) were business women, 6(8.5%) were self employed and 42(59.2%) were civil servants. The educational background of cases showed that 5(7.0%) had no formal education, 7(9.9%) had primary education, 10(14.1%) had post primary education while 49(69.1%) had acquired tertiary education.

Table 2: Occurrence of hypertension in pregnant women of advanced age (n=71)

Hypertension	Frequency	Percentages
Present	44	62.0
Absent	27	38.0
Total	71	100

Table 2 revealed that 44(62.2%) out of a total cases of 71(100%) had pregnancy induced hypertension while 27(38.0%) did not have.

Table 3: Nature of deliveries among pregnant women of advanced age (N=71)

Nature of delivery	Frequency	Percentages
Caesarean section	45	63.4
Vaginal delivery	26	36.5
Total	71	100

Table 3 showed that the number of cases delivered by caesarean section were 45(63.4%) while 26(36.5%) had normal vaginal delivery.

Table 4: Fetal and neonatal outcome of pregnancy among women of advanced age (N-71)

Fetal and neonatal outcome	Frequency	Percentages
Intra uterine death (fresh still births)	16	22.5
Live births	55	77.5
Total	71	100

Table 4 showed that cases of intrauterine death that occurred were 16(22.5%) while 55(77.5%) of cases were life births.

Table 5: Relationship between advanced maternal age and pregnancy induced hypertension (N=71)

Maternal age	Hypertension present	Hypertension absent	Row Total	X^2
40-44	40	27	67	
45-49	3	-	3	
50 and above	1	-	1	
Column total	44	27	71	29.8

Table 5 showed that there is significant relationship between advanced maternal age and pregnancy induced hypertension (X^2 cal = 29.8; df = 2 > critical X^2 5.991 at P<0.05).

Table 6: Relationship between advanced maternal age and caesarean section delivery (N=71)

Maternal age	Caesarean section delivery	Vaginal delivery	Row Total	X^2
40-44	41	26	67	
45-49	3	-	3	
50 and above	1	-	1	
Column total	45	26	71	30.9

Table 6 showed that there is significant relationship between advanced maternal age and caesarean section delivery (X^2 Cal = 30.9, df = 2 > Critical X^2 = 5.991 at P>0.05).

Table 7: Relationship between advanced maternal age and risk of fetal and neonatal mortality (N=71)

	Outcome of pregnancy			
	Intrauterine deaths (Fresh still births)	**Live births**	**Row Total**	**X^2**
40-44	12	55	67	
45-49	3	-	3	
50 and above	1	-	1	
Column total	16	55	71	65.2

Table 7 showed that there is significant relationship between advanced maternal age and risk of fetal and neonatal mortality (X^2 Cal = 65.2, df = 2 >Critical X^2 = 5.991 at P<0.05).

DISCUSSION

The result of the study showed that pregnant women of advanced age stood the risk of developing pregnancy induced hypertension, and that there is significant relationship between the two. These findings are supported by Jones (1992) who asserted that, pregnancy induced hypertension through likely to occur in primigravid patients is a higher risk found in older women. Jones further reported the fact that, though pregnancy induced hypertension complicates 3% of 8% of all pregnancies, 5% of 10% of cases are found in elderly primigravid women. (Maclean 1992). Campbell and Less (2001) also observed that maternal age greater than 40years is a risk factor to developing pregnancy induced hypertension. They reported that incidence of pregnancy induced hypertension is rated higher in pregnant women whose age is greater than 35years in agreement with (Ventura, Martin and Curtin 1995).

The result is also in agreement with the findings of Chan and Lao (1999) who reported pregnancy induced hypertension as a risk factor in pregnancy for mothers of advanced aged especially those who are primiparous. Ojo and Briggs (1992) categorically documented a high incidence of pregnancy induced hypertension among elderly primigravida of 35years and above. The result of the study affirmed this fact.

Findings of this study showed a significant relationship between advanced maternal age and caesarean section delivery. Koffiak-Griffin, Martin and Reeder (1997) in affirmation, reported the fact that advanced maternal age is an atieological factor in dysfunctional labour which may result in caesarean section; Grant (2001) reported that caesarean delivery is a choice of delivery to save mother and baby; and that older mothers underwent more induction, caesarean deliveries, assisted deliveries and augmentation of labour than younger women, even after adjusting for complication.

This affirms the fact that even with good during pregnancy; adequate antenatal and intra-natal care, pregnant women of advanced age may still stand the risk of caesarean section delivery; particularly those having first babies. They are more apparently to have slow progress of labour which is treated in hospital by oxytocin drip, possibly ending in an assisted delivery or caesarean section.

Ann (2000) and Adashek, Peaceman, Lepe, Zene, Minoque, Socol (1993) also support the report. They both reported high incidence of dystocia with body weight greater or equal to 3600 grams characterizing pregnancies in older mothers, contributing to increased frequency of caesarean section in older patients.

This study also revealed the risk of foetal and neonatal mortality and a significant relationship between this risk and advanced maternal age. The result is supported by the views of Jones (1992) that an increasing perinatal mortality with maternal age was noted in Britain, Malaysia and in New South Wales, apparent even among patients who had attended antenatal clinic. Dulitzki (1998) also reported poor foetal and neonatal outcomes despite the high surgical rate that characterized primiparo over 40years.

CONCLUSION

Advanced maternal age significantly influenced obstetric performance of pregnant women. Findings showed that both the mother and the foetus were at risk. The women encountered greater risk of induced hypertension and caesarean section deliveries. There was also an increase in foetal and neonatal mortality.

Based on the findings, six

recommendations were made to reduce the health risks associated with advanced maternal age in pregnancy. They included antenatal care, health education on early antenatal care services, special antenatal care for pregnant women of advanced age as well as routine tests such as triple screen and amniocentesis. Young ladies should be educated on the benefit of getting married when they reach the appropriate age and minimize the risks associated with pregnancy at older age.

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