



Review Article

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Pregnancy and delivery in advanced maternal age: epidemiologic aspects and prognosis

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Abstract

Introduction: Pregnancies in old age are a topical subject for both women and health professionals because of their increasing frequency. In Chad, pregnancy and childbirth in old age is a frequent phenomenon. So, we initiated this study to evaluate the prognosis of pregnancy and childbirth in old age. **Patients and method:** This was a descriptive prospective study about maternal and fetal prognosis of pregnancies in old age covering a period of 3 months, from 1st January to 31st March 2017. Were included in the study all parturient aged ≥ 35 years, a pregnancy age ≥ 28 years that have accepted to participate to this study. **Results:** During the study period we recorded 104 parturient with age ≥ 35 years among 8442 parturient giving a frequency of 1.23%. The average age was 36.7 years with extremes age of 35 and 45 years. Thirty five year-old were more represented with 45.2%. The majority of patients were married. The no uneducated had represented 75% of cases. The multiparous were more represented with 65.4%. Sixty-five (62.5%) did attended prenatal consultation. The pregnancy was at term for ninety-three (89.4%). The majority delivered by the vaginal route (87.5%). Hypertension was the most common complication with 12.8%. No maternal death has been reported. Fifty-eight newborns (53.7% had a birth weight between 3500-3999g. Thirty two newborns (29.6%) presented complications Perinatal asphyxia was the most common fetal complication with 8.3%. However, the perinatal death rate was 17.6%. **Conclusion:** Childbirth among women age ≥ 35 years is an infrequent phenomenon, with complications recorded that can be maternal or fetal.

Keywords: Accouchement advanced years, Prognosis, N'Djamena mother, Child hospital.

INTRODUCTION

Pregnancies in old age are a topical subject for both women and health professionals because of their increasing frequency. These late pregnancies occur in a variety of circumstances: fertility control, through safe contraceptive methods, means that pregnancies are now programmed by couples, the progress of medically assisted procreation, which attempts to meet the desire for pregnancy at any age, late marriage, the pursuit of long studies, the importance given to professional careers, and a second union with the desire for a child with the new partner [2]. Several studies have already examined the subject, particularly in the USA, Europe and Asia, which find that the prevalence of pregnancies in old age varies between 0.3% and 11.6%, childbirth among older women is between 1.8% and 2% [3]. Several studies have already examined the subject, particularly in the USA, Europe and Asia, which find that the prevalence of pregnancies in old age varies between 0.3% and 11.6%, childbirth among women in old age is between 1.8% and 2% [3]. In Chad, pregnancy and childbirth in old age is a frequent phenomenon. So we initiated this study to evaluate the prognosis of pregnancy and childbirth in old age.

PATIENTS AND METHOD

This was a descriptive prospective study about maternal and fetal prognosis of pregnancies in old age covering a period of 3 months, from 1st January to 31st March 2017. Were included in the study all parturient aged ≥ 35 years, a pregnancy age ≥ 28 years that have accepted to participate to this study. Studied variables were epidemiological, clinical, therapeutic and the prognosis. Data's were collected using Excel and analyzed with SPSS 18.0.

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RESULTS

Frequency

During the study period we recorded 104 parturient with age ≥ 35 years among 8442 parturient giving a frequency of 1.23%.

The average age was 36.7 years with extremes age of 35 and 45 years. Thirty five year-old were more represented with 45.2%.

The majority of patients were married. The majority were no uneducated in 75% of cases. The multiparous were more represented with 65.4%.

Pregnancy surveillance

Sixty-five (62.5%) did attended prenatal consultation. Twenty patients had had one prenatal contact (19.2%). Three patients (3%) had had more than 4 prenatal consultations.

Term of pregnancy and delivery mode

The pregnancy was at term for ninety-three (89.4%). Eight patients (8%) have a gestational period less than 37 weeks.

The majority of women delivered by the vaginal route ($n=91$ i.e.87.5%) compared to 13 cases (12.5%) that delivered by caesarean sections.

Hypertension was the most common complication with 12.8% followed by Third period Hemorrhage with 10.6%.

No maternal death has been reported.

Characteristics of the newborn at birth

One hundred four newborns (96.2%) had an Apgar score between 8-10 at the first minute or and 106 (98.2%) had an Apgar between 8-10 at the fifth minute

Fifty-eight newborns (53.7% had a birth weight between 3500-3999g. Twenty-nine (26.8%) weighed between 2000-2500g. Nine newborns (8.3%) had a weight below 2000g. Twelve newborns or 11.2% have a birth weight of $\geq 4000g$

Neonatal complication

Thirty two newborns presented complications (29.6%).

Table 1: Age

Age	n	%.
35	47	45,2
36	14	13,5
37	14	13,5
38	12	11,5
39	3	2,9
40	8	7,7
41	2	1,9
42	2	1,9
45	2	1,9
Total	104	100,0

Table 2: Epidemiologic characteristics

Epidemiologic characteristics	n	%
<i>Marital status</i>		
married	85	82
single	18	17
divorced	1	0,9
<i>Level of education</i>		
Uneducated	78	75
primary	8	8
Secondary school	11	10
university	7	7
<i>parity</i>		
Primipare	26	25
paucipara	6	5,8
multiparous	4	3,8
Large multipare	68	65,4

Table 3: Maternal complications

Complication	n	%
Third period Hemorrhage	11	10,6
Endometritis	4	3,8
Hypertension	13	12,8
malaria	9	8,7
Cardiopathy	1	1

Table 4: Foetal complications

Complication fœtales	n	%
Death	19	17,6
Hypoglycemia	4	3,7
Anemia	3	2,8
Congenital malformation	2	1,8
Perinatal asphyxia	9	8,3

DISCUSSION

Frequency

During this study period we had recorded 8442 parturient, 104 of whom (1.23%), were aged ≥ 35 years. This frequency is lower than the 2.75% reported by Kone [4] in Mali. High proportion of pregnancy and childbirth among young women can justify our findings. Factors such as early marriages, which are common in our country lead to earlier childbearing.

Age

The average age was 36.7 years with extremes age from 35 to 45 years. Thirty five year-old were more represented with 45.2%. Fatima [5] in Morocco in 2013 had reported 88% of women in labor aged ≥ 35 years old. This high proportion of pregnancies in 35-year-old women is linked to the physiological decrease of the fertility with advanced age, which is probably related to ovulation disorders.

Educational level

In this series, no schooled parturient had represented 75%. Goita. N [6] in Bamako reported 67.50% of parturient no schooled. These findings corroborated the assertion showing a low percentage of schooling among girls in our region. In Chad recent study about fertility found that fertility was inversely proportional to women's educational level. Uneducated women have on average twice to deliver than had had 7 or more years of schooling [7].

Marital status

National data on marital status shown that the majority of women are married [8]. These finding are confirmed in this series with 81.5% of married. This is related to factors such as: early marriage, poverty and especially social reason. In Chad living safe as single when age is above 35 years is not accepted by many families. For the population, decent life when age is above 35 years is suitable with married status. The second reason is provided by the fact that Chadian society doesn't accept the pregnancy when women are single. The occurrence of this one is a family dishonor.

Prenatal visit

The majority (62.5%) hadn't attended prenatal cares. Our findings is higher than the national data [8] which shown that 51% of women in urban areas had had at least 4 Prenatal visit. This difference could be explained by the large proportion of large multiparous women (65.4%).

Term of pregnancy and mode of delivery

The majority of patients (89.4%) had born pregnancy at term. Belmabkout [9] in Casablanca reported a higher proportion with 92.8% pregnancies at term. Eight patients (8%) have a gestational period less than 37 weeks this supports the report [10] showing that the pregnancy in old age is a situation favoring the preterm delivery.

The most common mode of delivery in this series was vaginal, ode (87.5%). Cesarean section had represented 12.5%. This rate of cesarean section rate is lower than the 15.3% reported by Tebeu P in Cameroon in 2008[11]. Ngozi [12] in Nigeria noted a cesarean section rate of 8.6%. Our findings are linked to the fact that pregnancy among women aged ≥ 35 years in is considered a high-risk pregnancy and the occurrence of another morbidity lead to cesarean section.

Maternal postpartum complications

Patients with hypertension had represented 12.8%. Eleven patients (10.6%) had had third stage hemorrhage 0%. This confirms literature data's reporting a high proportion of hypertension and post partum hemorrhage among old women bearing a pregnancy [12, 13, 14].

Maternal evolution

Maternal evolution was good in this series with zero maternal deaths. This result is better than the 2% of maternal death rate reported by Timjerdine's[15]. In this case the implementation of the policy of exception fees for emergency can explain this maternal death rate. This policy which shortens the time required for treatment and considerably reduces complications.

Fetal prognosis

Birth weight

The majority of newborns in this series have a birth weight between 3500-3999g. Twelve newborns (11.2%) have a birth weight of ≥ 4000 g. Ichaka D in Bamako[16] noted that 6.6% of newborns are macrosomes. The high rate of macrosomia in this series supports some data's citing advanced maternal age is a risk factor for macrosomia and large fetuses[17]

Fetal mortality

The neonatal death rate in our series was 17.6%. This rate is close to those of Kiely[18], and Kanguku IB[19] that reported respectively a neonatal death rate of 16.3% and 18.1% % , for these authors, the

advanced age is a risk factor for in intra uterine death and neonatal death.

CONCLUSION

Childbirth among women age ≥ 35 years is an infrequent phenomenon. The main characteristics of these women were: poor prenatal cares and multiparous. Complications were maternal or fetal: hypertension, hemorrhage Eclampsia, asphyxia perinatal and fetal death.

Authors approval

All authors approve the submission of this work.

Conflict of interest

All authors have declared that there is no conflict of interest.

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