

Unfollowed Pregnancies: Maternal and Perinatal Prognosis in a District Hospital in Cotonou

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Abstract

Objective: To evaluate the prognosis of unfollowed pregnancies at a referral hospital of the district.

Patients and methods: This was a cross-sectional, retrospective, descriptive study over a period of six (6) months, from May 1st to November 30th, 2016.

Results: The frequency of unfollowed pregnancies was 21.5%. The post-partum women were young (75.8% aged between 20 and 34 years old), uneducated (43.9%), and sellers (30.3%). The complications at admission were mostly pre-eclampsia (54%), placenta previa (21%), retroplacental hematoma (11%) and postpartum complications were anemia (74%), immediate postpartum hemorrhage (9%) and infection (6%). Cesarean section was performed in 38.9% of cases. The stillbirth rate was 8.5 per 1000 births and the early neonatal mortality rate was 36.5 per 1000 live births.

Conclusion: unfollowed pregnancies still remain a global health problem in developing countries. They constitute a pejorative element for perinatal and maternal prognosis in terms of morbidity and mortality.

Keywords: Pregnancy not followed; Maternal prognosis; Perinatal cottonou

Introduction

The follow-up of pregnancies has a considerable influence on the health of the mother and child. Indeed, pregnancies are monitored so as to identify high-risk pregnancies. To ensure a correct follow-up of the pregnancy, it is recommended that the pregnant woman carry out at least four prenatal consultations [1]. So frequent prenatal consultations for pregnant women is associated with a lower probability of stillbirth. Thus, the latest WHO recommendations for prenatal care indicate eight antenatal contacts [2].

According to WHO, only 64% of women worldwide receive prenatal care at least four times during pregnancy? In sub-Saharan Africa, the antenatal consultation coverage rate is 46% [3]. In Benin, according to Demographic and Health Survey of Bénin IV (DHSB IV) [4], since 2001 there has been no significant change in prenatal care: the proportion of women receiving prenatal care increased from 87% in 2001 to 88% in 2006 and 86% in 2011-2012. Medical literature about the lack of follow up during pregnancy is limited. Few specific studies have been carried out in Benin on the issue of unfollowed pregnancy concerning maternal and perinatal prognosis. This work aims to evaluate that prognosis.

Patient and Methods

This is a retrospective descriptive cross-sectional study over a six-month period, from May 1 to November 30, 2016, at a referral district hospital.

The study population consisted of medical files of pregnant women who gave birth in the hospital during the study period. The pregnancy was declared unfollowed for women who did not have any consultation during all the pregnancy. We included patients who delivered at a gestational age of at least 28 weeks and/or whose fetal weight was greater than 500 grams. Gestational age was estimated by measuring the uterine height or performing an ultrasound during the admission. We used convenience sampling.

The variables studied were relative to socio-demographic and obstetric checkup data, childbirth patterns and maternal and perinatal prognosis.

These data were entered on Word 2010 and Excel 2010 and then analyzed by software SPSS version 16.0. Software R.

Ethical considerations

Authorization from the hospital and maternity ward was obtained prior to the study. The anonymity of the patients and the confidentiality of the data have been respected.

Results

Frequency

A total of 1134 deliveries were recorded including 244 deliveries from 242 unfollowed pregnancies (240 single pregnancies and 02 twin pregnancies), corresponding to a rate of 21.5%.

Socio-demographic data

Women aged between 20 to 34 accounted for 75.8% of cases. They came from a rural area in 44.7%, and 43.9% were uneducated. They were either seller (30.3%) or housewives (24.6%). The spouses were mostly drivers (37.3%) or farmer (27.9%).

Clinical data

They were paucigest in 42.2% and nulliparous in 45.9%. Pregnancies were supposed to be full term (>36SA6days) in 87.7% of cases and 9% of women had previously had a caesarean section. Referred patient's represented 75%. The main reasons for the medical referral were unfollowed pregnancy (29.9%), lumbar and pelvic pain (23%) and high blood pressure (8.2%).

In 70.9% of cases, the active phase of labor was diagnosed and more than 50.8% of cases had already lost water before admission. The duration of membranes rupture ranged from 6 to 12 hours in 32.8% of cases.

In 65 patients (27%), a pathology related to pregnancy was noted at admission: pre-eclampsia (54%), placenta previa (21%) and retro-placental hematoma (RPH) (11%).

In addition, the fetal heart sounds at admission were absent in 8.6% of cases.

Mode of delivery

Cesarean section was performed in 38.9% of parturient. The main indications were acute fetal distress (27.3%), foeto-pelvic disproportion (18%) and eclampsia (7.4%).

Maternal prognosis

Postpartum complications were recorded in 68 patients (27.9%). The main complications were anemia (74%), immediate postpartum hemorrhage (9%) and infection (6%). One case of maternal death due to RPH has been recorded.

Perinatal prognosis

The Apgar score at the first minute was superior or equal to 7 in 145 newborns (58.4%). We recorded 21 cases of stillbirth including 6 cases without cardiac activity at the admission. In newborns with APGAR inferior to 7, eight (08) were resuscitated in vain. The birth weight was superior to 2500 g in 84% of newborns. A reference in neonatology was performed for 110 newborns. The main reasons were neonatal distress (35.4%), prematurity (27.3%), and maternal hyperthermia 12.7%

The morbidity was dominated by neonatal asphyxia (15.75%), prematurity (12.1%) and fetal hypotrophy (4%)

Discussion

Frequency

According to the World Health Organization, antenatal care is essential. It enables health workers to provide pregnant women with care, support and information, including promoting healthy lifestyle choices, good nutrition, detecting and preventing illnesses, providing advice on family planning and assisting women who may be victims of

violence by his partner [5]. However, many pregnant women continue to have no contact with a health facility throughout their pregnancy.

In the literature, the rate of unfollowed pregnancy varies with its definition, the time as the country or the region. Overall, the rate of unfollowed pregnancies in developed countries ranged from 1 to 3%. Thus the rate of unfollowed pregnancies in 1995 was 0.7% [6] in Cleveland and 13% in New Mexico [7]. In France, the rate of pregnancy without follow-up was 0.2% in 95, 0.1% in 98, 0.2% in 2003 and 0.0% in 2010.

The rate is higher in developing countries. The rate in our study (21.5%) was lower than those noted in the Centrafrican Republic in 1995 (38%) [8] and in Benin in 2014 (33%) [9], but higher than those in RCI (7,35%) [10].

According to DHSB IV [4], the proportion of women who did not receive prenatal care in Benin was 12% in 2011-2012.

According to some studies, some factors are constantly observed and associated with unfollowed pregnant: age [11-14], ethnic origin foreign to the country where the child is born [12,13,15] and the precarious situation of the patients [11-13,15,16]. This last criterion is one of the most frequently observed with the absence of pregnancy monitoring.

For Friedman et al. [6] the main reasons were disorders due to substance addiction (30%), pregnancy denial (29%), financial reasons (18%) and hidden pregnancy (9%).

Regarding the age, the lack of prenatal follow-up was more observed in children under 20 ($p=0.003$). This consistency was also found in African [11,17-19] and European [13,19,20] literature. In our study, the average age of the women was higher (26 years).

The role of socio-economic conditions has been highlighted in surveys that have shown that antenatal care coverage increases with household socio-economic status, ranging from 68% in households in the lowest quintile to 97% in the highest [1].

In our study 43.9% were uneducated. Considering the level of education, at least 95% of educated women, regardless of their level, received prenatal care [4]. On the other hand, among women with no level of education, the proportion of women who did not receive prenatal care is 15%.

So this socio-demographic profile (coming from the rural area in 44.7%, sellers in 30.3% or housewives in 24.6%, spouse drivers in 37.3% or farmer in 27.9%) could explain the high rate of women who did not benefit of prenatal care in our study.

At last this high frequency could be explained well by the hospital's status. Indeed 75% of the admissions were a medical referral from the lower level. Its denominational status with relatively low fees makes it a favorite center of reference for the poor.

Maternal prognosis

Unfollowed pregnancies are a high-risk pregnancy. In our study, 27% of patients had a complication. These were mainly pre-eclampsia (54%), placenta previa (21.0%), and retro-placental hematoma (11.0%). But those complications seem not to be associated with the lack of follow-up since they were found in the same order of frequency in a survey conducted in 2009 in all health facilities in Benin [1], namely severe pre-eclampsia/eclampsia (15%), antenatal hemorrhages (9.6%), and uterine rupture (1.9%).

The post-partum complications were noted in 27.9% of cases. These were anemia, immediate postpartum hemorrhage, and infection, which accounted respectively for 74%, 9.0% and 6% of complications. A study conducted in Benin [1] noticed that post-partum complications were post-partum hemorrhage (19.6%) and severe postpartum infection (1.9%) (%). In studies of the Bedouin population, Abu-Ghanem et al. [21] and Dickstein et al. [22] observed that unfollowed patients were at greater risk for retroplacental hematoma, transfusion, but less risk of stagnation or postpartum hemorrhage

Here also, the low socio-economic level with its corollary of nutritional deficiencies and the absence of iron supplementation may explain this high percentage of postpartum pathologies.

Maupin et al. [16] showed a higher rate of premature rupture of membranes in unfollowed pregnancies, but no difference for pre-eclampsia or retroplacental hematoma.

We have recorded one maternal death in a pregnant woman with a retroplacental hematoma (0.4%). Lettice et al. [14], in the Guadeloupian population, found no difference in terms of serious maternal morbidity in the patients followed and poorly followed.

Perinatal prognosis

In utero fetal deaths also represent a more frequent outcome [12,21,22].

According to Lejeune C. in a study published in 2008, there is a strong correlation between precariousness, unfollowed pregnancies and an increase in perinatal pathologies as prematurity, Intrauterine Growth Retardation (IUGR), infections, acute fetal distress, etc., with their risks of cognitive, neurosensory and/or respiratory sequelae [23].

An increased risk of prematurity is observed in almost all studies [11-26]. Similarly, the low birth weight, often characterized by weight less than 2500 grams, is found significantly in most studies.

In this study, fetal morbidity was dominated by neonatal distress with (15.7%) followed by prematurity (12.1%). In addition, 16.1% of newborns had a birth weight inferior to 2500 grams.

The lack of pregnancy follow-up appears to be a significant association with neonatal mortality [13,22-27]. Some recent data have shown a correlation between the frequency of antenatal visits and the likelihood of stillbirths.

Conclusion

No monitored pregnancies are still a public health problem in developing countries and constitute a pejorative factor in perinatal maternal prognosis in terms of morbidity and mortality.

This maternal-fetal morbidity and mortality can be reduced through adequate prenatal visits especially refocused antenatal care.

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