

High Blood Pressure and Pregnancy in a Hospital Environment in Lomé: Prognostic and Clinical Epidemiological Aspects

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Abstract

Objectives: Study the prognostic, clinical and epidemiological profile of high blood pressure and pregnancy association at the Sylvanus Olympio Teaching Hospital (CHU Sylvanus Olympio) of Lomé. **Patients and Method:** It is about a retrospective study that is carried out at the gynecology-obstetrics unit from January to December 2016. Pregnant women with High Blood Pressure after delivery were concerned. **Results:** In total, 767 pregnant women with High Blood Pressure out of 12107 were taken. The frequency of HBP-pregnancy association was 6.33%. The 21 to 30 bracket age was the most represented (53.71%). The most common risk factor was the overweight or over-obesity (41.98%). Other risk factors were the first delivery and maternal age superior to 30 years old. Common clinical cases described in the study are the same as a predominance of *preeclampsia*. Caesarean has been the common method of delivering with foetal complications of prematurity type, neonatal suffering and hypotrophy. **Conclusion:** HBP-pregnancy association is a public health concern with serious foetal maternal complications. The prevention of this association is of great importance.

Keywords

HTA-Pregnancy, Complication, Prognostic, Lomé (Togo)

1. Introduction

Pregnancy, considered as a physiological phenomenon, involves sometimes the

vital prognostic of the mother and or the new-born when it is especially associated with some pathologies. That is the case of High blood pressure (HBP) [1]. High blood pressure (hypertension) is observed during pregnancy with a prevalence of 5% to 15%. As for eclampsia preceded by pre-eclampsia, its incidence is estimated between 1/2000 pregnancies [1]. This pathology constitutes one of the first causes of maternal-fetal morbidity and mortality in Africa which can be avoided with a responsibility in 30% of maternal deaths and 20% of fetal and neonatal mortality [2].

Pregnancy High Blood pressure association is a real problem of public health care in the world with a very variable prevalence according to the studied populations [3] [4] [5] [6]. Complications of this association are extremely serious and dominated in the mother by preeclampsia and in foetal by hypotrophy and prematurity necessitating an early medical care and multidisciplinary in tight collaboration among obstetrician, cardiologist, resuscitator and neonatology [3] [4] [5]. This association in sub-Saharan countries in general and particularly in Togo is not deeply described. We initiated this study that aimed at the study of the profile of this association in a gynecology-obstetrics unit in Lomé.

2. Patients and Methods

It is a retrospective study that took place in the gynecology-obstetrics unit at *Sylvanus Olympio* Teaching Hospital of Lomé. It covered a period of twelve months from January to December 2016. Pregnant women with High Blood Pressure after delivery were concerned. High Blood pressure diagnostics were considered on the basis of systolic High Blood pressure superior or equal to 140 mmHg and/ or a diastolic HBP superior or equal to 90 mmHg at least two times taken while in rest at left lateral decubitus position or while seated. Studied parameters were the epidemiological data (age, socio-professional status, antecedent, High Blood Pressure risk factor, clinical data (mass corporal index calculated from the immediate post-partum weight and the height, blood pressure figures, oedema), proteinuria. Maternal foetal complications and delivery modalities were also studied. Data collection sheet was the tool used so as to have all its information. We used the software SPSS version 20.0 to analyse the data

3. Results

3.1. Epidemiological Aspects

Over 12107 patients having delivered, 767 have HBP, that is a frequency of 6.33%.

The group age of 21 to 30 was the most common in 53.71% (**Table 1**).

3.2. Medical and Gynecology-Obstetrics Histories

If 53.6% (N = 411) of patients have delivered twice, on the other hand, 16.3% (N = 125) delivered more than 4 times. Also, 78% (N = 598) of patients were primiparous, and 2.9% (N = 22) in a parity superior to 5.

71 patients (9.25%) have high blood pressure (hypertensive) known before pregnancy.

3.3. Clinical Aspects

Patients' body index mass calculation made it possible to note that 41.98% among them were overweight/obeseness. Also, regarding high blood pressure, 85% of patients were at stage II and III according to the classification of the WHO. Finally, 76.79% (589 patients) had oedemas at lower limb and proteinuria was tested positive with 726 patients (94.65%). The most common clinical form has been pre-eclampsia (86.70%) (Table 2).

3.4. Complications Forms

The major maternal complication was the preeclampsia (86.70%). La prematurity was the most frequent foetal complication (27.77%) (Table 3).

One must remark that 54.62% (N = 419) of patients had delivered by caesarean.

Table 1. Distribution of patients en according to the age (in year).

	Number	Percentage (%)
[Inferior to 21]	79	10.29
[21 à 31]	412	53.71
[31 à 41]	259	33.76
Superior to 40	17	02.21
Total	767	100

Table 2. Distribution of patients by clinical form.

	Number	Percentage (%)
Chronic (HTA-HBP)	10	1.30
Gravid (HTA-HBP)	31	4.04
Pre-eclampsia	665	86.70
Over added Pre-eclampsia	61	7.95
Total	767	100

Table 3. Patients distribution according to foetal complications.

	Number	Percentage (%)
Prematurity	213	27.77
Neonatal suffering	56	7.30
Dead	5	0.65
Hypotrophy	26	3.38
NO complication	467	60.88
Total	767	100

4. Discussion

This study tells us that the frequency of HBP-pregnancy association was 6.33%. The 21 to 30 bracket age (53.71%) was the most represented. The most common risk factor was the overweight or over-obesity (41.98%). Common clinical cases described in the study are the same as a predominance of preeclampsia. Caesarean has been the common method of delivering with foetal complications of prematurity type, neonatal suffering and hypotrophy. The present study has limitations due to its retrospective nature. There is thus a bias in recruitment and selection. However, the size of the sample, the site where the study was carried out and the inclusion criteria gives the study strength and replicability.

We have noted in our study a frequency of hypertension-pregnancy association at 6.33%. This frequency is estimated between 5% and 10% in the USA [4], 10% to 15% in France [5]. In sub-Saharan Africa, it is estimated at 17.05% in Guinea Conakry [6], 8.9% in Niger [7] and 7.65% in Benin [8]. The frequency of High Blood Pressure Pregnancy is therefore variously appreciated in the study. Even if our frequency is close to that of some authors [4] [7] [8], we think that it is certainly underestimated since our work did not only take into account the ongoing of the unit in delivery. In our study, the age bracket of 21 to 30 was the most represented (53.71%) followed by that of 31 to 40 years; unlike Baragou's study [9] who noted that the age group from 30 to 39 is the majority (50%). However, our result is similar to that of some authors in the sub-region [6] [7] [8]. Overweight/obesity was the first risk factor found in our series (41.98%) confirming data of the study [5]-[10]. HBP was grade 2 in the majority of cases in our study (85%) as in [4]-[9] series and oedema of the lower limbs was objectified in 76.79% of cases. It should be noted that oedema of the lower extremities is frequent, especially in late pregnancy, but they are pathological only when they are associated with blood pressure or proteinuria different from an episode of urinary infection [11] [12]. Thus preeclampsia was the major maternal complication in our series. This preponderance of preeclampsia is also reported in a Guinean series [6] and in another Togolese series [9].

Preeclampsia is an obstetric emergency because it involves the maternal-foetal vital prognosis [13]. Health expansion and multidisciplinary care (obstetrician, pediatrician, and intensive care) made it possible to reduce maternal morbidity and mortality, especially in developed countries [13]. In developing countries where health centers are confronted with a shortage of technical facilities, prevention is compulsory by mainly affecting on preventable risk factors such as: obesity, sedentary lifestyle, diabetes, dyslipidemia and diabetes.

Prematurity (27.77%), neonatal distress (7.30%), hypotrophy (3.38%) and fetal death (0.65) were the fetal complications in our series. In fact, prematurity often iatrogenic and secondary hypotrophy at placental insufficiency are the two complications extremely common with a foetal and neonatal mortality rate ranging from 12.5% to 35% [6] [7] [14] [15] [16].

5. Conclusion

HBP-pregnancy association represents a public health problem with dreadful complications. We must more lay emphasis on the avoidable prevention of risk factors and educating pregnant women.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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