Perfil de gestantes com síndrome hipertensiva em uma maternidade pública

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ABSTRACT

Objetivo: evaluar el perfil de gestantes con Síndrome Hipertensiva de la Gestación; caracterizar condiciones demográficas. Método: estudio descriptivo, retrospectivo documental, con enfoque cuantitativo, desarrollado en la Maternidad Dr. Peregrino Filho en Patos/PB. La población del estudio fue compuesta por 468 prontuarios de gestantes sometidas a cesárea en el período de enero de 2008 a diciembre de 2012, por medio de ficha elaborada en el Servicio de Archivo Médico y Estadística (SAME). Los datos fueron digitados en banco de datos del Excel y procesados en SPSS Inc versión 18.0.0 para proceder a análisis descriptivos. Resultados: preeclampsia leve fue la más diagnosticada. Idades entre 19 a 25 años, solteras, residentes en la zona urbana, color parda, entre 35 a 40 semanas de gestación. El alojamiento conjunto fue el más utilizado, primer embarazo con uso de metildopa. Conclusion: las síndromes hipertensivas merecen especial destaque en salud pública, iniciando con perfil de calidad y tratamiento en ambiente hospitalario. Descriptores: Preeclampsia; Eclampsia; Gestantes; Maternidad.

RESUMEN

Objetivo: evaluar el perfil de gestantes con Síndrome Hipertensivo de la Gestación; caracterizar condiciones demográficas. Método: estudio descriptivo, retrospectivo documental, con enfoque cuantitativo, desarrollado en la Maternidad Dr. Peregrino Filho en Patos/PB. La población del estudio fue compuesta por 468 prontuarios de gestantes sometidas a cesárea en el período de enero de 2008 a diciembre de 2012, por medio de formulario elaborado en el Servicio de Archivo Médico y Estadística (SAME). Los datos fueron digitados en banco de datos de Excel y procesados en SPSS Inc versión 18.0 para proceder a análisis descriptivos. Resultados: la preeclampsia leve fue la más diagnosticada. Edades entre 19 a 25 años, solteras, residentes en la zona urbana, color parda, entre 35 a 40 semanas de gestación. El alojamiento conjunto fue el más utilizado, primer embarazo con uso de metildopa. Conclusión: los síndromes hipertensivos merecen especial destaque en salud pública, iniciando con perfil de calidad y tratamiento en ambiente hospitalario. Descriptores: Pré-Eclampsia; Eclampsia; Gestantes; Maternidad.

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INTRODUCTION

Hypertensive Syndromes in Pregnancy (HSP) deserve special attention in the global health scenario because they represent the third cause of maternal mortality worldwide and the first cause in Brazil. In developed countries, approximately two to eight in every 100 pregnant women will develop the event, while in Brazil the incidence can reach 10% of cases. Thus, due to the severity of the disease, this is considered as an important cause of hospitalization in Maternal Intensive Care Unit (Maternal ICU) and sometimes included as criteria for severe maternal morbidity.1

In most of pregnancies, evolution occurs without complications. However, there is a portion of pregnant women who have certain characteristics or suffer from an illness that endanger the health of the mother and fetus. Among the maternal diseases that occur during gestation, the pregnancy-induced hypertension is the one that causes adverse effects on maternal and fetal body.2

The main cause of maternal and fetal morbidity and mortality are hypertensive complications. Hypertensive disorders of pregnancy affect 7.5% of Brazilian women. The World Health Organization (WHO) defines maternal death one where the woman dies during pregnancy or within a period of 42 days after the termination of pregnancy, irrespective of the duration or location of the pregnancy.4

Arterial hypertension (AH) is considered a public health problem. Its prevalence varies according to age, sex, race, obesity and associated diseases such as diabetes and kidney disease.5 Hypertension in pregnant women is defined by the presence of systolic blood pressure equal to or higher than 140 mmHg and diastolic blood pressure equal to or greater than 90 mmHg. To be detected, two measurements should be observed within an interval of four hours.5

According to the hypertensive state, AH is classified into three major categories: pregnancy-induced hypertension (preeclampsia and eclampsia); chronic hypertension preceding pregnancy and hypertension with toxemia superimposed on pregnancy, besides its clinical outcomes such as premature placental abruption (PPA), intrauterine growth restriction (IUGR), maternal and fetal death, prematurity, pulmonary and cerebral edema.4,6

Preeclampsia is a multisystem disorder exclusive of pregnancy and characterized by hypertension and proteinuria with development triggered in the 20th week of pregnancy.9 When delayed, its onset occurs in the 34th gestational week.10 The detection of the protein previously to the 20th week of pregnancy suggests pre-existing renal disease.11

According to the criteria established by the National Blood Pressure Education Program Working Group (NHBPEPWG), preeclampsia may be clinically characterized in the mild and severe forms. It is a syndrome with unknown cause and characterized by vasospasm, endothelial activation and activation of the coagulation system with alteration in blood pressure control.4 A complex disease with unknown etiology and a disorder of pregnancy that negatively affects mother/baby.12

Notably, among risk factors that increase the likelihood of a pregnancy to develop preeclampsia are diabetes, kidney disease, obesity, multiple pregnancy, primiparity, age over 30 years, personal history and/or family history of preeclampsia, chronic hypertension and ethnicity. The increase in blood pressure causes deleterious effects on various systems, particularly on the vascular, hepatic, kidney and brain systems.13-14

Mild preeclampsia begins due excessive and sudden weight gain (greater than or equal to 500g/week) followed by generalized edema and hypertension. Present of BP <160/110 mmHg in at least two measurements taken after the 20th week of pregnancy in women who have never had hypertensive manifestation; presence of proteinuria between 300mg and 2g in 24 hours which can rapidly progress to more severe forms without necessarily presenting all criteria of severity.11,15-16 Brain symptoms are headache, dizziness, blurred or gastrointestinal vision(epigastric pain, nausea or vomiting, or thrombocytopenia and liver enzyme abnormalities) even in the absence of proteinuria.5

Severe pre-eclampsia presents the following findings: BP> or = 160/110 mmHg (GUIMARÄES, 2014).16 Presence of 2.0g additional proteins in the urine of 24 hours; diuresis (urine volume) less than 500 ml/day or 15 ml/minute; serum creatinine greater than 1.2 mg/dl; major headache, vomiting and visualization of scotomas, signs of heart failure, abdominal pain, especially on the region of the liver; decreased number of platelets in the blood and disturbance of factors responsible for the presence of amniotic fluid in small fetus for the gestational age. Pregnant women who present
severe preeclampsia should be compulsorily admitted to high-risk ward and subjected to absolute rest.17

Eclampsia is the appearance of seizures in a pregnant woman with preeclampsia.18 It can occur during pregnancy, childbirth or within 10 days postpartum and is defined by the manifestation of generalized tonic-clonic seizures and/or with pregnant women with hypertension or preeclampsia in the absence of neurological diseases.19 It can occur during pregnancy, childbirth and immediate postpartum.20 Its manifestation before the 20th week of pregnancy is rare and when it happens, the diagnosis of hydatidiform mole or antiphospholipid antibody syndrome must be rejected.19 Usually, seizures are preceded by warning signs; the most common are headache and visual disturbances such as diplopia, blurred vision and scintillating scotoma.4 The most frequent causes of death in eclampsia cited were congestive heart failure, strokes and complications of obstetric surgeries.8

When eclampsia occurs during late pregnancy, labor must be anticipated by identifying the major causes of pre-eclampsia before the onset of seizures.21 When eclampsia occurs during childbirth, labor is accelerated, the mother begins to improve after death or expulsion of the fetus, within 12 to 24 hours. In postpartum eclampsia, seizures occur soon after birth almost always within 24 hours.8 Recent mothers should be counseled about the possibility of complications and warning signs of eclampsia at the moment of discharge from the hospital.5

Maternal and perinatal morbidity and mortality are still high in Brazil and this is incompatible with the current economic and social development of the country. Prenatal care requires dynamic assessment of risk situations. The monitoring of an effective prenatal care and the simple act of measuring blood pressure can prevent or control the hypertensive state of pregnancy as well as HSP.20-23

The motivation to obtain data on the profile of women with HSP came during a work developed as a clinical nurse in the maternity Dr. Peregrino Filho in Patos/PB, where high number of admissions of pregnant women diagnosed with the disease to be studied was observed, since this is a reference hospital for the surrounding municipalities.

Because this is a condition with injuries to maternal and child health, and high morbidity and mortality rate, the following questions were raised: what is the number of women affected by HSP from January 2008 to December 2012 at the Maternity Dr. Peregrino Filho? What are the demographic characteristics, clinical forms, gestational week, parity and use of medications recorded in the medical charts of these pregnant women? We expect that this research may significantly contribute to studies related to HSP for professionals working in the field of obstetrics. Based on these questions, the following objectives were developed:

- Evaluate the profile of pregnant women with Hypertensive Syndrome of Pregnancy;
- Characterize demographic conditions; identify clinical forms and sectors of hospitalization;
- Identify the gestational week at the moment of hospitalization;
- Quote parity and use of medications.

METHOD

Descriptive, retrospective and documentary study with a quantitative approach developed at the Public Maternity Dr. Peregrino Filho, located in the city of Patos in the Paraíba Hinterland, 300 km away from the capital João Pessoa/PB, a medium-sized municipality with a predominantly urban population and totaling 104.716 inhabitants with reference to 46 surrounding municipalities. Since May 2012, this assists pregnant and postpartum women in Maternal ICU.24

The population consisted of 468 medical records of pregnant women that had undergone cesarean section from January 2008 to December 2012 with information contained in the records of users and with confirmed diagnosis of HSP.

As inclusion criteria to participate in the survey the following points were observed: have been assisted in the maternity Dr. Peregrino Filho in the period of survey; Diagnostic of HSP; availability of all information necessary for completing the data collection instrument in the chart.

Before starting the research, the study was authorized by the director of the Maternity Dr. Peregrino Filho, submitted to Brazil Platform for appreciation of the Ethics Committee of the Integrated Colleges of Patos (FIP/PB) Protocol CAAE nº: 2043513.5.0000.5181.

Data were collected by the researcher in the hospital through a form previously elaborated in Service of Medical Records and Statistics (SMRS). Forty-two records, on average, were evaluated per day in the period from 18 October to 27 December 2013, with an estimated collection time of 8 hours per
week. Collected data included demographic characteristics such as age, marital status, skin color and specific issues: gestational week, parity, use of medications, clinical forms and sectors of hospitalization. The information examined in archived records were medical diagnosis, BP of pregnant women at admission, prescription of specific medications for HSP, parity, demographic data (filled by the receptionist), and some incomplete records in this item. Data were collected in the evolution of nursing to ascertain the place of hospitalization.

All variables transcribed from records were entered into Excel database and processed in Statistical Package Program for Sciences (SPSS Inc, Chicago, USA) version 18.0 to make the descriptive analysis.

RESULTS

The results of this study indicate a higher prevalence of pregnant women aged between 19 to 25 years, according to diagnoses in medical records. High rate (63.40%) of single women with complications and predominance of HSP in urban areas (73.50%) were observed. As for color, white was the most evident in 2008 (59.20%) and 2009 (68.20%) and the less evident in 2012 (11.30%). On the other hand, the higher prevalence of brown skin color was found in 2012 (87.60%) and the lower prevalence of this color was seen in 2008 (59.20%). Black-skinned had little impact, the highest ones were in 2008 (3.90%) and 2010 (3.80%).

It was found that 76.30% of women with HSP were between 35 and 40 weeks of gestation. According to data collected from medical records, it was observed that most women with HSP were in the first pregnancy: in 2008 (68.40%); 2009 (60.60%) and 2010 (55.80%); the other pregnant women had low incidence. Mild preeclampsia based on the values of blood pressure (BP) were evident in the medical records. The highest incidence was observed in 2008 (73.70%) and the lowest in 2011 (52.50%). Severe preeclampsia had higher incidence in 2010 (32.90%) and eclampsia in 2011 with 16.90% of cases.

With respect to prescribed medications, there was Hydralazine in 2010 (32.10%) and 2011 (32%); Methyl多pa in 2008 (51.10%); Nifedipine 2008 (32.10%) and 2009 (33.10%) and magnesium sulfate in 2012 with 13.50%. As for the hospital sector, higher prevalence in Maternal ICU was seen in the year 2012 (16.50%) and the lowest in 2009 (1.50%). High risk ward prevalence was higher in 2010 (38.50%); 2008 (30.30%) and 2011 with 30.50% the lowest in 2012 with 10.30% of the cases. In rooming-in, higher prevalence of hospitalizations was seen in 2009 (80.30%); 2012 (73.20%) and the lowest in 2008 (69.70%) and 2010 with 62% of cases.

DISCUSSION

There was a high number of early pregnancy among young women and adolescents in this study. Similar results were found in pregnant women aged between 15 and 19 years (45.45%) and 13.63% between 20 and 24 years4, opposing scholars who reported the age group of women at 35 to be predisposed to occurrence of preeclampsia.25

There was high number of single women, corroborating the study of authors26 that emphasize the predominance of young people aged between 15 and 19 years developing HSP, in contrast to a documentary descriptive research conducted in São Paulo/SP that report a percentage of 86.36% of married women and only 9.09% of single women.4

There was a predominance of HSP in the urban area, confirming the findings of a study by authors in 2011 that point to 58% of participants residing in urban areas followed by 42% in rural areas. The authors justify this explaining that, in certain areas, there are restrictions on access and lack of physical infrastructure, equipment and qualified professionals.26

In this research, there was a prevalence of brown-skinned women, also found in a research where the authors report a predominant risk factor for non-white skinned women (92.54%), a fact related to the great miscarriage typical of Brazil.23 Other authors2 contradict this when they identify a prevalence of white skinned women (54.54%) against non-white women (40.90%) in a study developed in a public hospital in São Paulo/SP. Still within this perspective,27 a research with women affected HSP in a hospital in Sorocaba/SP found a prevalence of 176 white-skinned women against 55 not white.

It was found in the present study that 76.30% of women with HSP were between 35 and 40 weeks of gestation. This corroborates a study conducted in 2010 that showed the same indices, women who developed SHG with gestational age between 25 and 40 weeks.28 However, another study found women over 37 weeks (60%) while the others (40%) were in a period between the 30th and the 37th week at the same hospital in this study, thus giving another look at HSP.16
According to the data collected from medical records, most women with HSP were primigravidae. A study carried out in India found that the higher incidence of HSP occurred among primigravidae, young women with preeclampsia in previous pregnancies. 29

There is a shortage of articles reporting the occurrence of HSP in multiparous women and, thus, there is a gap in the discussion of this topic, evidenced prevalence of women with HSP among women pregnant of the first child.

Prevalence of women with mild preeclampsia according to BP values recorded in the medical records was evident in this study. Studies state that, in other countries like those from Africa, Asia, Latin America and the Caribbean, eclampsia accounts for 60-100% of maternal deaths related to HSP 30 and the lack of assistance to women with preeclampsia or its unfavorable outcome can lead to death, making this disease the main responsible for maternal mortality in Latin America and the Caribbean, including Brazil. 30

Other researchers argue that women diagnosed with preeclampsia after 28 weeks, and in the severe form, evolved to eclampsia with increased BP of 180x120 mmHg. 31

Another study illustrates that during the period from 2000 to 2010, 211 pregnancies diagnosed with preeclampsia were selected. Most patients had the severe form of the disease (82.8%) as seen in the clinic and maternity the hospital of clinics of the UFMG. 10

In this research, it was observed that pregnant women made use of more than one drug during their hospitalization, or made use of a combination of medications to better success and reduction of signs and symptoms of a HSP. In hypertensive crisis, while preparing to terminate the pregnancy, antihypertensive drugs are administered to prevent serious complications, especially stroke. Among the most orally administrated drugs were β-methyldopa, β-blocker (propranolol), and calcium channel blockers (nifedipine and nicardipine), while intravenous drugs such as hydralazine are mostly used in hypertensive emergencies, corroborating the treatment of HSP in women that are in serious condition with intravenous administration of magnesium sulfate (loading doses and maintenance) as a prophylactic and curative medicine for inhibition and remission of seizures of users, respectively. The definitive treatment of preeclampsia is the childbirth. Depending on factors such as gestational age, gravity, fetal well-being and presence or absence of complications, termination of pregnancy may be indicated. 32

Pregnant women who develop HSP are subjected to hospitalization in maternal ICU and generally, this need is accentuated after the thirtieth week. 34 Importantly, the data found in this study are in agreement with the findings in the literature. Analyzing the medical records of pregnant women admitted to the Maternal ICU of the Public Maternity Dr. Peregrino Filho in Patos/PB has the information on the number of pregnancies that each patient had had.

The HSP is a serious public health problem in Brazil and managers should be alert to the implementation of more tailored health policies directed to the health of those users with qualitative and quantitative association of prenatal care, individualising reference and counter-reference of pregnant women to obstetric specialties, showing the itinerary of them in the SUS. 35

CONCLUSION

Mild preeclampsia was the HSP most frequently found in pregnant women in this study and they were aged between 19 to 25 years old, single, living in an urban area, brown-skinned and with 35 to 40 weeks of gestation. The rooming-in was the most prevalent sector in hospitalization for postpartum women in their first pregnancy and making use of methyldopa.

Therefore, it was observed that HSP deserve special attention in the public health scenario starting with prenatal care of high quality and especially hosting the pregnant woman/companion, as well as treatment for these women in a hospital setting in order to decrease in maternal/fetal mortality.

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