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RESEARCH ARTICLE

INCIDENCE OF LIGHT, SEVERE AND ECLAMPSIA PREECLAMPSIA IN THE HEALTH CENTER OF HECELCHAKAN, CAMPECHE

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ABSTRACT

Objective: To determine the number of cases of mild, severe preeclampsia and eclampsia.
Materials and Methods: A retrospective, cross-sectional, observational and descriptive study was carried out, including all pregnant patients as of week 20 of gestation and puerperal women. Pregnant women were selected from 20 weeks of gestation or postpartum women who had blood pressure equal to or greater than 140/90 mm Hg in two doses with a difference of 6 hrs. Between each one after resting or an elevation of 30 mm Hg systolic number and 15 mm Hg the diastolic with respect to its usual TA in the same way in two shots.
Results: Thirty-two (67.74%) had mild preeclampsia, 17 (27.42%) had severe preeclampsia and three (4.84%) had eclampsia. The age subgroup with the highest incidence of mild and severe preeclampsia was 15 to 19 years for eclampsia of children under 15 years. Two patients who had severe preeclampsia during the postpartum period, most of the pregnant women were 40 weeks' gestation when they were diagnosed with preeclampsia.
Conclusion: During the two years, 62 cases were reported at the Hecelchakan Health Center, Campeche.

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INTRODUCTION

Hypertensive alterations during pregnancy are an important cause of maternal death and fetal morbidity and mortality worldwide. Pregnant hypertensive patients are predisposed to the development of life-threatening complications; Placental abruption, disseminated intravascular coagulation (DIC),cerebral hemorrhage, hepatic and renal failure. The number of women with hypertension in the course of pregnancy can be estimated at around 10%, with incidence of up to 20% if the patient is nulliparous. (Fernández Contreras *et al*., 2000)Preeclampsia is a medical complication of pregnancy, also called pregnancy toxemia, and is associated with induced hypertension during pregnancy and is associated with high levels of protein in the urine (proteinuria) (Ananth *et al*., 1995). Eclampsia is the presence of convulsions or coma, at the end of

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pregnancy or in the immediate postpartum period, with arterial hypertension, edema and proteinuria. (Cotton, 1991)Mild preeclampsia is considered with two or more of the following signs: SAD greater than or equal to 140 mmHg; TAD greater than or equal to 90 mmHG. Proteinuria greater than 300 mg in 24-hour urine. And severe preeclampsia when there is: SAD greater than or equal to 160 mmHg, TAD greater than or equal to 110 mmHg. Proteinuria greater than 5 g / l in 24-hour urine. Eclampsia is considered to be the presence of convulsions or coma at the end of pregnancy or in the immediate postpartum period with arterial hypertension, edema and proteinuria. (Sánchez *et al*., 2005) Severe preeclampsia is usually instituted before 34 weeks of gestation, with high levels of proteinuria or with one or more adverse conditions. The USG Doppler of the uterine arteries may be useful to support the placental origin of hypertension, proteinuria and adverse conditions. (Gómez and Andrés, 2006; Zahumensky, 2009) Hypertensive alterations during pregnancy are an important cause of maternal death and fetal morbidity and mortality worldwide. The WHO estimates that there are more than 166 thousand deaths annually due to preeclampsia (PE). Its incidence is 5 to 10% of pregnancies, but mortality is 5 to 9 times higher in developing countries. In Latin America, perinatal morbidity is 8 to 45% and mortality from 1 to 33%. (Urviola, 2002) In Mexico, the latest reports from the National Institute of Statistics, Geography and Informatics refer to 1,268 maternal deaths; more evidence that is recent indicates that, although these have declined, they still occur in marginalized populations without adequate prenatal control. In our country, despite the fact that maternal mortality has decreased, preeclampsia / eclampsia, obstetric hemorrhage and heart disease occupy the first places as causes of maternal death. (Urviola, 2002) Pre-eclampsia is thought to be caused by mediators of inflammation or toxins that secrete the placenta and act on the vascular endothelium. In some cases, the syndrome is thought to be caused by a shallow implantation placenta, which becomes hypoxic, causing an immune reaction characterized by increased secretion of mediators of inflammation from the placenta and acting on the vascular endothelium. Surface implantation may be the consequence of a reaction of the immune system against the placenta. This theory emphasizes the role of maternal immunity and refers to evidence suggesting a failure in maternal tolerance to paternal antigens established in the fetus and placenta. (Burne, Jerome, 2007)Preeclampsia is the most recent medical complication of pregnancy, has been found in 5 to 12% of pregnancies (Barron and Marshall, 1995; Levy *et al*., 1994). The incidence varies between 2 and 13% (Ananth *et al*., 1995). Eclampsia has been found in 0.038%, 0.09% (Arauzo, 1996) and up to 0.8% (Távara *et al*., 1994).Preeclampsia is one of the most harmful conditions for the pregnant woman and the fetus. It is an important cause of maternal mortality (Hogberg*et al*., 1994; Akpadza *et al*., 1994; Srp *et al*., 2002). Maternal mortality due to preeclamsia is high (Hogberg *et al*., 1994) ranging from 29% (Konje *et al*., 1992) to 14% (Ananth *et al*., 1995) and the main causes are postpartum hemorrhage, placental abruption, coagulopathy, renal insufficiency, hypertensive encephalopathy, intracerebral hemorrhage, Hellp (Srp *et al*., 2002) syndrome and rupture of hepatic hematoma.

Objective

To determine risk factors for mild, severe and eclampsia preeclampsia at the Hecelchakan Health Center, Campeche during the study period from January 2015 to December 2016.

MATERIALS AND METHODS

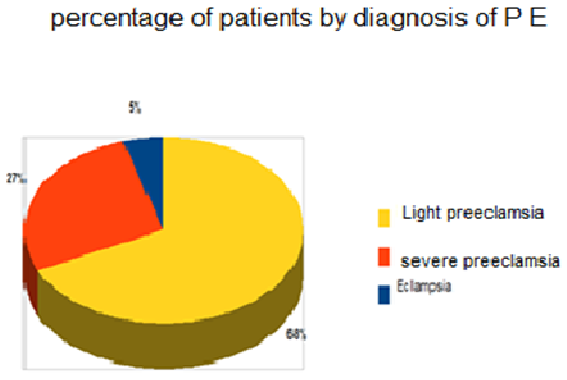
The following study was carried out with a retrospective, transverse, observational and descriptive design, including all pregnant patients as of the 20th week of gestation and puerperal women who attended the general medical practice, gynecology or emergency department Of the Hecelchakan Health Center, Campeche; The study period was from January 2015 to December 2016.A population of 62 pregnant patients was obtained, who went to a control visitor to the emergency department. Pregnant women were selected from 20 weeks of gestation or postpartum women, who had blood pressure equal to or greater than 140/90 mm Hg in two shots, with a difference of 6 hrs between each one after resting or an elevation of 30 mm Hg The systolic number and 15 mm Hg the diastolic with respect to its habitual TA in the same way in two shots. The collection of data was carried out by a medical doctor during his social service. The variables that were taken into account were: age, number of gestations, weeks of gestation or puerperium, TA number, proteinuria, lower limb edema. The data were captured in a database to carry out the analysis through measures of central tendency (average, fashion and median), dispersion measures (standard and average deviation), classification in subgroups, determination of proportions and percentages. The results were expressed in tables and pie charts, lines and bars with the use of Microsoft® software such as Excel and Word 2003.

Ethical aspects

The present biomedical research paper meets the ethical considerations recognized at the 18th World Medical Assembly of Helsinki, Finland in 1964 revised and reaffirmed at the 29th World Medical Assembly in Tokyo, Japan, 2000.This research work, which will contain personal data, will only be used in accordance with the scientific objectives that the research itself establishes. In no way may the data be used for purposes other than those intended to be achieved with the performance of the work.

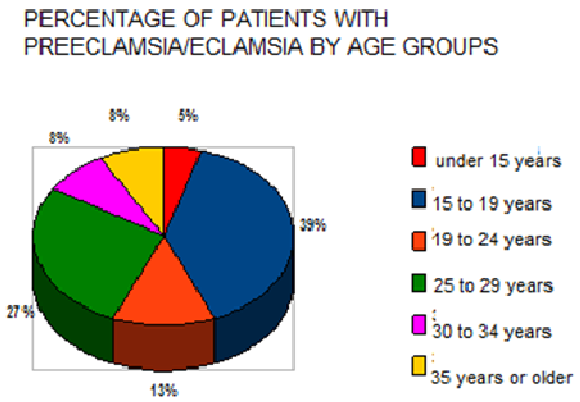
RESULTS

The study population that covered the diagnostic criteria was composed of 62 patients (N = 62). 42 (68%) had mild preeclampsia, 17 (27%) severe preeclampsia, and 3 (5%) eclampsia of the total of pregnant patients who met the diagnostic criteria (Graph 1).



Graph 1

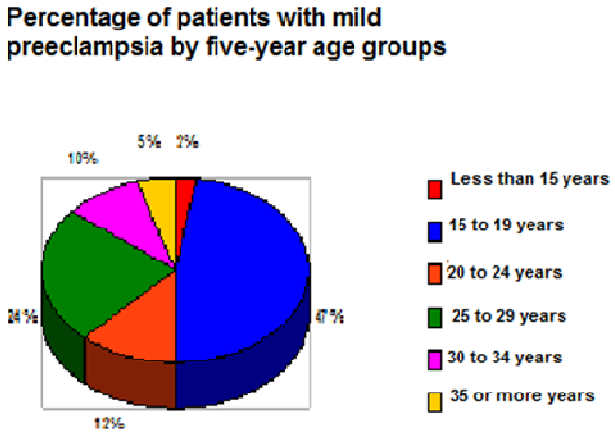
The weight range of the total population was 49 to 102 kilograms with an average of 71.37 kg. The subgroup of mild preeclampsia was 49.5 to 102 kg (mean of 72 kg) and in the severe preeclampsia subgroup of 49 to 91.4 kg (mean of 70.55). The mean weight of patients with preeclampsia was 76.75 kg. A size range of 1.3 to 1.61 m was found in the patients. The age range of the patients was 14 to 40 years. The following age subgroups were made: less than 15 years, from 15 to 19, from 20 to 24, from 30 to 34 and from 35 or more years. The first group was 15 to 19 years of age (24 patients), second to 25 to 29 years (17) and in the third to 20 to 24 years (8) (Graph 2).



Graph 2

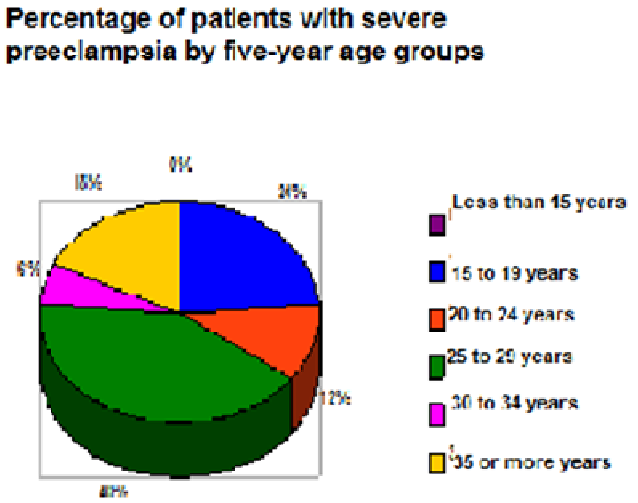
In the subgroup of mild preeclampsia, the subgroup with the highest incidence was 15 to 19 years old as well as for severe preeclampsia. For the eclampsia was the one of less than 15 years (2). The mean age of the patients with preeclampsia / eclampsia was 23.38 years, the fashion of 19, the median of 22.5 and deviations of 6.9 and 5.7 standard and average respectively. In the cases of eclampsia the average age was 16 years, the fashion and median of 14 years; Is a standard deviation of 3.46 and mean deviation of 2.66. In mild preeclampsia, the mean was 22.59, fashion of 19 and median of 20.5, with standard and mean deviations of 6.2 and 5.3. The mean age of patients with severe preeclampsia was 26.64, the mode of 18 and the median of 26, being the standard deviation of 7.64 and the mean of 5.8 (graph 3)

Gráfica 3



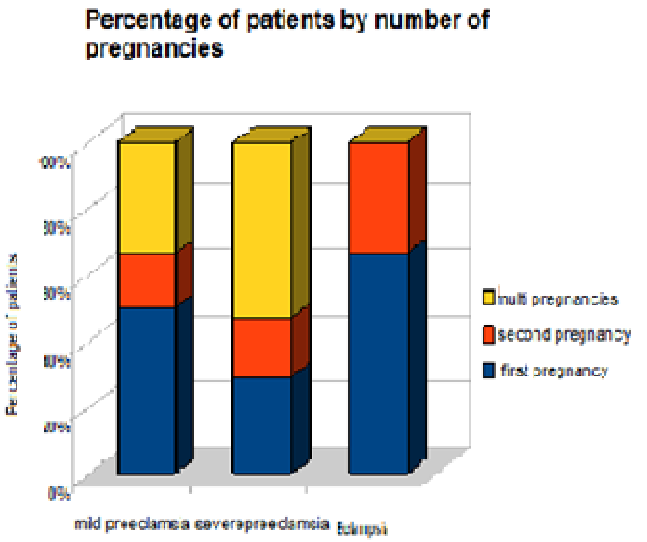
Graph 3

The subgroups of the weeks of gestation were of 4 weeks, being 40 or more as the main of the total population (28), followed by 36 to 39 and 32 to 35 weeks. The range was 30 to 40 weeks. Also within the study population were two patients who had severe preeclampsia during the first week of puerperium. In mild preeclampsia, the subgroup with more patients was 40 or more weeks, in severe preeclampsia, 36 to 39 as in eclampsia. The mean of the gestation weeks of the patients was 38.13, the median of 39 and the fashion of 40, with a standard deviation of 2.8 and averages of 1.97 (graph 4)



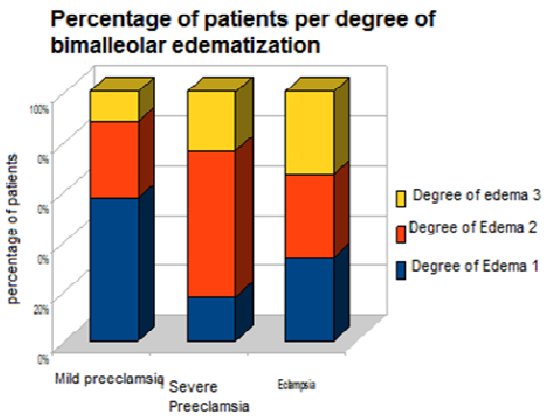
Gráfica 4

The range of gestational numbers was 1 to 8. Out of the total population 45.16% attended with their first gestation. The percentage of primigravidae in mild preeclampsia was 50% (21), secondary cases 16.6% (7) and multigestion of 33.3% (14). In severe preeclampsia, 29.4% (5) were primigravidae, 17.6% (3) secondary and 52.9% (9) multigestive. Of the patients with eclampsia, 66.6% (2) were primigravidae and one was secondary (33.3%). (Figure 5)



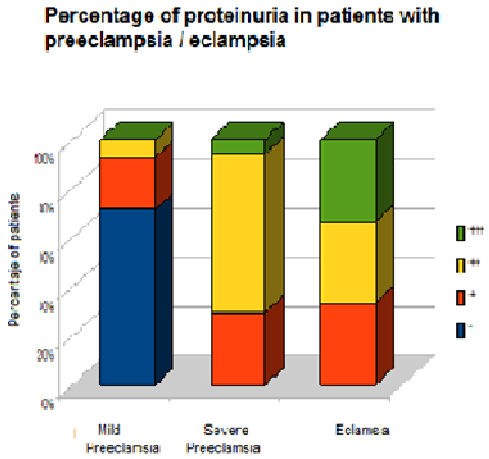
Graph 5

The major degree of bimalleolar edema in patients with mild preeclampsia (24) was +, in severe preeclampsia (10) ++ and in eclampsia was variable. (Figure 6)



Graph 6

In the study population, only 6.45% had a short intergenic period, 3.23% had chronic hypertension, and none had been diagnosed or suspected of having an autoimmune disease or diabetes mellitus. Of the total patients, 48.39% had 30 mg / dL of proteinuria in the test strip, 24.19% 100 mg / dL, 24.19% 300 mg / dL and 3.23% 2000 mg / dL. In the subgroup of mild preeclampsia, 71.43% (30) had 30 mg / dL and in severe preeclampsia 64.71% (11) had 300 mg / dL. Of the three patients with eclampsia, each had different values (100.300 and 2000 mg / dL) (Graph 7).



Graph 7

Conclusion

For two years (January 2015 to December 2016), 62 confirmed cases were reported at the Hecelchakan Health Center, Campeche, where illiteracy and poor economic conditions prevail. Fortunately, most of the cases detected were mild preeclampsia and there were only 3 cases of one of the worst complications, eclampsia, of which no patient died. However, it is worrying that the majority of the patients are primigravida (45.1%) and younger than 19 years (38.7%), which conditions that they return to present this pathology or some of its complications. Nationally it has been observed that the average age of the first pregnancy is at 19 years. It should be emphasized that the presence of triad hypertension, edema and proteinuria is not necessary for the diagnosis of preeclampsia, since the degree of edema or proteinuria is not always related to severity, two of the eclampsia patients had less than 300 Mg / dL and one of them had mild bimalleolar edema. Patients who presented greater edema (facial edema) had mild preeclampsia. In addition to educating pregnant women about maternity, it is important to continue the training of physicians so that this problem is addressed in a timely manner, since even though the most advanced technology is not available, simple blood pressure to patients can help for timely detection and monitoring, thus preventing complications to the maternal-fetal binomial. Since preeclampsia-eclampsia continues to be a major morbidity and mortality problem both in Mexico and worldwide, research on its etiology should be encouraged in order to integrate better knowledge and development of treatment to reduce its incidence in early stages.

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