

STUDY ON BIRTH OUTCOME IN CASES THAT HAVE EVOLVED WITH PREECLAMPSIA

Gina-Alina Balta¹,
Elena Silvia Bernad¹

SUMMARY: Preeclampsia is defined clinically as hypertension (BP 140/90 mmHg) installed after 20 weeks of amenorrhea associated with proteinuria 0.3g/24h. Despite all the scientific contributions made, the disorder remains a 'disease of theories', a poorly understood etiology in which it cites immunological, genetic and environmental factors that seem to disrupt the normal evolution of pregnancy. Ongoing research efforts are oriented towards to establish a predictive test that preeclampsia was recognized as early as possible. Also, we want to apply a correct management practices to limit as much as possible maternal and fetal complications, both short and long term. This study was conducted at the Clinic of Obstetrics and Gynecology 'Bega', Timisoara, between 01.01.2008 - 31.12.2010 and research has covered a lot of 431 patients with preeclampsia, after which it was concluded that preexisting hypertension, first pregnancy, in vitro fertilization, obesity, diabetes, antiphospholipid syndrome, twins, male sex of the fetus are important risk factors. Result pregnancy with preeclampsia is influenced by a number of complications that affect both mother (eclampsia, HELLP syndrome, premature departure normally inserted placenta) and fetal (prematurity, acute and chronic fetal distress, oligoamnios, fetal malformations, fetal death). Treatment is individualized for each case, caesarean section completed a large part of these tasks. In conclusion, preeclampsia raises many questions that we do not know the answer, but A.Einstein said 'the most important thing is to never stop asking questions. Curiosity has its own reason for existence'.

Keywords: birth, outcome, preeclampsia

STUDIULUI EVOLUȚIEI SARCINILOR CU PREECLAMPSIE

Rezumat: Preeclampsia este definită clinic ca hipertensiune arterială (TA > 140/90 mmHg) instalată după 20 săptămâni amenoree, asociată cu proteinurie > 0.3g/24h. În ciuda tuturor contribuțiilor științifice efectuate, afecțiunea rămâne în continuare o 'boală a teoriilor', cu o etiopatogenie insuficient cunoscută, în cadrul căreia se citează factori imunologici, genetici și de mediu ce par a perturba evoluția normală a sarcinii. Eforturile cercetărilor în curs de desfășurare se orientează înspre a pune bazele unui test predictiv prin care preeclampsia sa fie recunoscută cât mai precoce. Deasemenea, se dorește aplicarea unui management cât mai corect pentru a limita pe cât posibil, complicațiile materne și fetale, atât pe termen scurt, cât și pe termen lung. Studiul de față s-a desfășurat în cadrul Clinicii de Obstetrică-Ginecologie 'Bega', Timișoara, în perioada 01.01.2008 – 31.12.2010 și a avut ca obiect de cercetare un lot de 431 paciente cu preeclampsie, în urma căruia s-a concluzionat că hipertensiunea arterială preexistentă, primiparitatea, fertilizarea in vitro, obezitatea, diabetul zaharat, sindromul antifosfolipidic, sarcina gemelară, sexul masculin al fătului constituie importanți factori de risc. Rezultatul sarcinii cu preeclampsie este influențat de o serie de complicații care afectează atât mama (eclampsie, sindrom HELLP, decolare prematură de placentă normal inserată), cât și fătul (prematuritate, suferință fetală acută și cronică, oligoamnios, malformații fetale, deces fetal). Tratamentul este individualizat fiecărui caz în parte, operația cezariană finalizând o mare parte din aceste sarcini. Prin urmare, preeclampsia ridică multe întrebări la care nu se cunoaște răspunsul, dar A.Einstein spunea: Lucrul cel mai important este să nu încetezi să pui întrebări. Curiozitatea are propria rațiune de a exista.

Cuvinte cheie: sarcină, evoluție, preeclampsie.

Received for publication:
04.08.2011
Revised:
05.01.2012

1. - University of Medicine and Pharmacy "Victor Babeș" Timișoara, Department of Obstetrics and Gynecology XII
Childcare Neonatology, University Clinic of Obstetrics and Gynecology Bega, Timisoara

Correspondence to: Prof. Univ. Dr. Anastasiu Doru Mihai, Clinica Universitara de Obstetrica-Ginecologie "Bega" Str. Victor Babes, Nr 12, Timisoara, doru_anastasiu@yahoo.com

OBJECTIVE

Preeclampsia is a pregnancy specific complication characterized by hypertension and proteinuria, seen worldwide as an important cause of maternal and fetal morbidity and mortality. (Pennington, 2012)

The purpose of survey is to assess the eligible group of patients - 431 patients with preeclampsia, with analysis of risk factors responsible for the disruption of the normal evolution of pregnancy. Also, we try sketching some of the maternal and fetal effects, that pathology studied is responsible, and how completion of pregnancy in cases of maternal hypertension. Thus, this paper provides an overview of the situation of the analyzed interval obstetric and discusses issues related to the disease that currently remain a 'disease of theories'.

MATERIALS AND METHODS

We conducted a retrospective study in Obstetrics and Gynecology Clinic 'Bega', Timisoara. During the period studied - 01.01.2008 - 31.12.2010, there was a total of 7767 births. The inclusion criterion was the patient who was born in period and presented at admission preeclampsia. The literature describes preeclampsia as a public health problem, with the assumption that it is the most common medical complication of pregnancy, its incidence reaching 5-10% of all pregnancies. (Munteanu 2006) Reported in this study, the incidence of preeclampsia has reached 5.6%. If in 2008 there were 174 cases of preeclampsia, slightly more cases than in 2009 (2 test, $p = 0.137$, $= 0.05$), significantly more cases than in 2010 (2 test, $p = 0.0002$, $= 0.001$), and in 2009 there were 160 cases significantly more cases than in 2010 (2 test, $p = 0.025$, $= 0.05$), followed by 2010 to reach 97 cases of preeclampsia. It is noticed that an unexpected trend of decreasing incidence with progression over time. Preeclampsia overlapped with preexisting hypertension pregnancy in 26 cases.

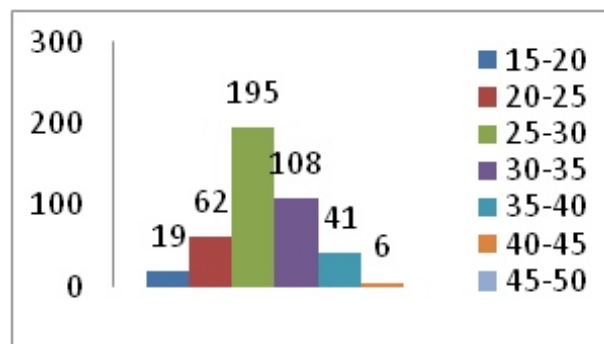


Fig. 1. Distribution of patients by age.

An overview of the group reveals a high incidence of the disease among urban women from 311 cases to 120 women from the rural areas. Regarding maternal age most affected, it was noted that between 25-35 years recorded the highest number of cases of preeclampsia. (Fig. 1.)

In an attempt to analyze some of the triggers of the disease to analyze the situation of the conceptus. Thus, hypertension of pregnancy was reported in 235 women who have male children, significantly more cases to 196 cases in which the product of conception was the female, placing suspicion on the basis of this genetic hypothesis, involving genes HLA. (Fig. 2).

First pregnancy is the situation in which the first exposure to paternal antigens and are believed to have a role in the disease (Munteanu, 2006). From the group of women with pathology studies have noted 228 primiparous women and 203 women who was not at first pregnancy. Regarding the situation of abortion, there is a significantly reduced incidence of preeclampsia in women who had at least one abortion history -196 cases compared with 228 women who are the first pregnancy. (Fig. 3)

Moreover, out of 175 twins percentage of 13.71% was affected by the disease, and in the group with pregnancy obtained by in vitro fertilization preeclampsia occurred in 7.50% of cases. Diabetes mellitus and obesity (Walsh, 2007), on the disruption of the endothelial activation

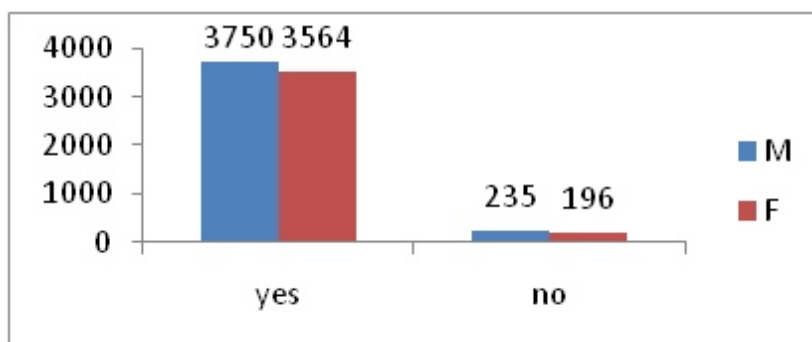


Fig. 2. The correlation between infant sex and preeclampsia cases.

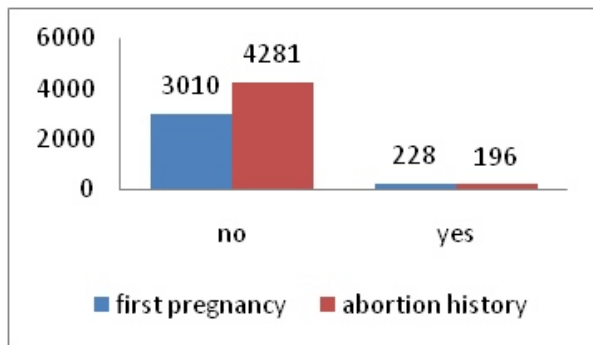


Fig. 3. The situation of abortion in preeclamptic pathology.

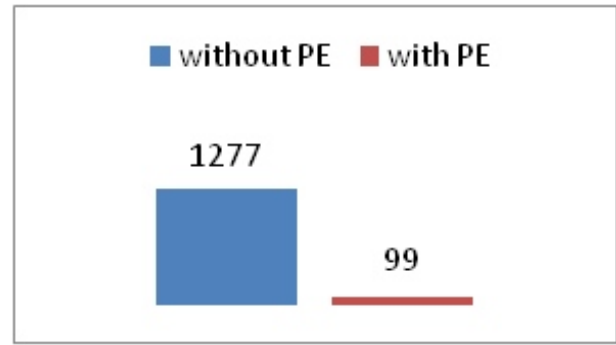


Fig. 6. Evaluation of prematurity in the study group

system can be treated as risk factors. Pregnancy-induced hypertension has affected a percentage of 11.76% and 7.14% female diabetic obese women.

It is known that sometimes a pregnancy with preeclampsia evolution can be towards a more severe clinical picture represented the symptoms of eclampsia (Errol, 2002). If the study group, there were 11 cases, including 3 women were hospitalized with a diagnosis of eclampsia, and the remaining 8 cases, the complication occurred during hospitalization it was decided to end birth in maternal and fetal interests. HELLP syndrome is another complication associated maternal preeclampsia three biological disorders (Errol, 2002) microangiopathic hemolytic anemia (Hemolysis H), elevated liver enzymes (EL Elevated Liver enzymes), thrombocytopenia (platelets Low LP), which occurred in 5 cases. Another dramatic situation represented by the premature departure of normally inserted placenta (P?scu?, 2009), called by

some authors, eclampsia bleeding complicated with preeclampsia 17.65% of tasks.

Another objective of the statistical analysis is to highlight the consequences of maternal pathology of the conceptus. Most fetuses are born with a birth weight appropriate gestational age. But there was a total of 56 infants weighing less than 2500g (Fig. 4) and in 99 cases was born at a gestational age below 38 weeks. (Fig. 5).

In assessing the maturity of the product of conception, there were 99 premature infants. (Fig. 6)

Chronic fetal distress, also included in the category of fetal complications affected a total of 39 newborns. In turn, chronic fetal hypoxia, is responsible for the other consequences that hinder adaptation to extrauterine life: contamination of amniotic fluid with meconium, which can have a toxic action (bile pigments in meconium may cause skin maceration or irritation of the respiratory mucosa) and septic action (with an increased risk of

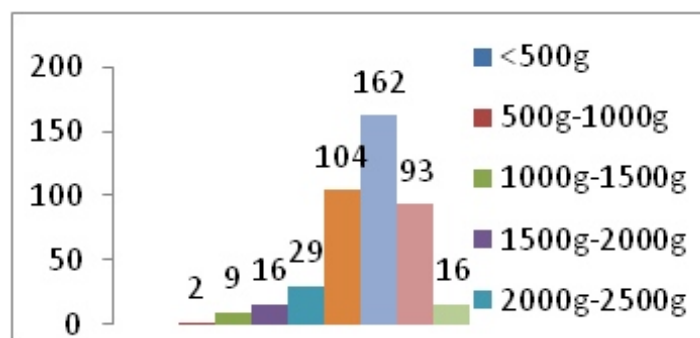


Fig. 4. Distribution of infants according to birth weight.

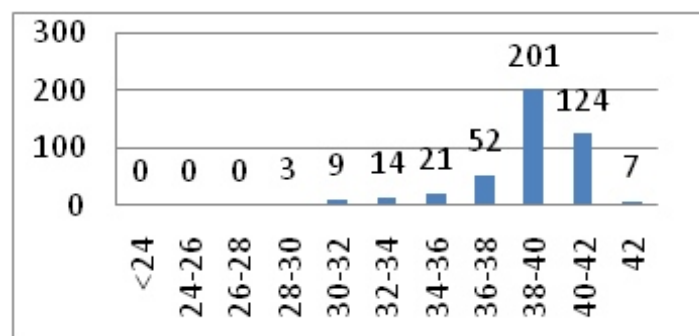


Fig. 5. The distribution of births by gestational age.

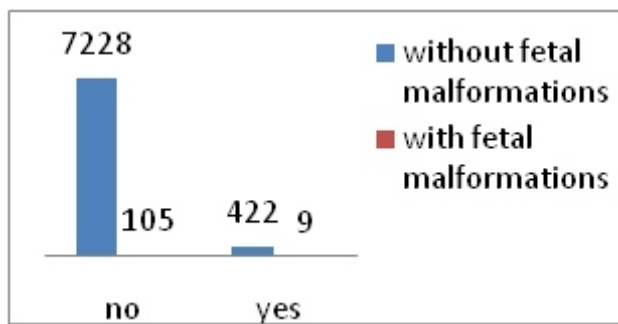


Fig. 7. The presence of fetal malformations in the study group.

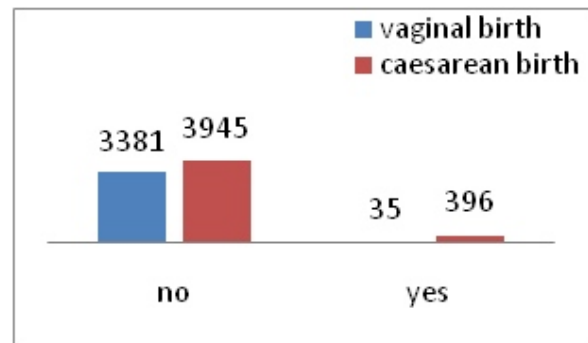


Fig. 8. How to complete the task.

colonization by pathogenic amniotic fluid) and lung aspirate, which may be the pathophysiological substrate of severe respiratory distress or neonatal septic pneumonia. (Munteanu, 2006) On the other hand, acute fetal distress required immediate decision making regarding task completion in a number of 38 cases and the oligoamnios (Carl, 2011) occurred rapidly in case of acute fetal hypoxemia, complicated 15 cases. Unfortunately, the offspring derived from mother with preeclampsia is subject to the risk of malformations in 9 aspect newborn (Fig. 7.) and the risk of fetal death (Carl, 2011), was recorded one death in the study group .

Regarding the management of cases of preeclampsia, hypertension treatment that occurs during pregnancy in most cases remained symptomatic, further improving prognosis is due to more rigorous supervision of patients. If you can not directly address the etiological factors, therapeutic attempts to reduce the factors that favor the emergence and maintain preeclampsia, prophylactically and then to reduce the pathological effects of predisposing factors or triggers, curative purposes. Curative treatment should take into account the consideration that this syndrome represents a formidable case for both the risk of breast and especially the fetus. The objectives can be summarized as: (Munteanu, 2006) termination of pregnancy with as little damage maternal and fetal birth of a living child fostering healthy, as close to term with a good neonatal adaptation further, preventing the onset of complications. It is known that

the treatment of preeclampsia is the etiological in fact the end of birth, the risk of maternal and fetal that persists as long as the product design can be found in the uterine cavity. (Sibai, 2003)

Preeclamptic women in the group can see that in 396 of the cases caesarean section was chosen as a way to complete the task and only 35 of the cases, women gave birth vaginally. (Fig. 8)

CONCLUSIONS

Preeclampsia remains currently a pathology that disrupts the normal tasks in a high percentage. Having a poorly known etiology, the disease is influenced by a number of risk factors: male gender of the fetus, pre-existing hypertension, first pregnancy, abortion history of twin pregnancy, in vitro fertilization, maternal diabetes, obesity. Result pregnancy with preeclampsia is influenced by a number of complications that affect both mother (eclampsia, HELLP syndrome, premature departure normally inserted placenta) and fetal (prematurity, acute and chronic fetal distress, oligoamnios, fetal malformations, fetal death). Regarding how preeclamptic pregnancy outcome, the trend is to perform caesarean section, the possible complications required option already installed or planned. Because maternal and fetal risk, both during pregnancy and in the long term, it wants a better placement of pregnancy with preeclampsia management, based on a screening test configuration as closely.

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