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Effects of flow period preeclampsia the outcome of pregnancy and childbirth

Abstract: The dependence of outcomes of pregnancy and childbirth for mother and fetus from the start time and duration and the severity of preeclampsia. We have the research, the outcome of pregnancy and delivery in 100 pregnant women with varying degrees of severity of PE, of which Group 1 consisted of 50 patients with early onset of PE (up to 30 weeks of pregnancy), the 2nd group of 50 pregnant women — with the beginning of PE after 34 weeks. Prolonged PE for creates the most unfavorable conditions for the development of the fetus, reducing its adaptive capabilities increases the frequency of low birth weight, prenatal pathology increases. Pregnant with the beginning of PE to 30 weeks and the duration of its passage must be under strict supervision of an obstetrician-gynecologist and reanimatologist

Keywords: preeclampsia, liver, nocturia, left ventricular myocardial mass

Despite advances in diagnosis and treatment of preeclampsia (PE), this pathology remains the leading cause of maternal and prenatal morbidity and mortality. In recent years, the trend towards the predominance oligosymptomatic forms with the erased clinical picture, which in practice often leads to an underestimation of the severity of the disease, insufficient volume of therapeutic measures [2; 5; 6; 7].

Long-term observations carried out in our clinic showed that most adversely flowing with early-onset preeclampsia at 26–30 weeks. In rare cases, the development of this complication of pregnancy can occur even earlier — in 20 weeks, but the number of such women does not exceed 1–2% of the total number of pregnant women with early-onset PE.

When combined with new-onset proteinuria, high numbers diastolic blood pressure delayed fetal development should be diagnosed as severe preeclampsia. To assess the severity and extent of PE currently used different scales [1; 4; 5; 8].

Given the variety of offers clinicians scales and methodologies, we decided to identify the most reliable criteria for assessing the severity of PE, because of the assessment of the severity of PE depends on the choice of treatment and delivery [1; 6; 7; 8].

Objective: study the dependence of outcomes of pregnancy and childbirth for mother and fetus from the start time and duration and the severity of preeclampsia.

Materials and methods

We performed a comparative analysis of anamnesis data, the results of clinical, laboratory and instrumental methods of research, the outcome of pregnancy and delivery in 100 pregnant women with varying degrees of severity of PE, of which Group 1 consisted of 50 patients with early onset of PE (up to 30 weeks of pregnancy), 2 th group of 50 pregnant women — with the beginning of PE after 34 weeks. Age of the women surveyed ranged from 18 to 38 years on average $24,5 \pm 2,1$ g in the first group, $25,8 \pm 3,2$ in group 2. In both

groups dominated nulliparous women (65% and 58% in the 1 st th and groups). However, 35% of patients with early-onset PE were nulliparous older than 26 years, in the second group of patients was only 18.5%.

Results and discussion.

Analysis of the dependence of PE from extra genital confirm that PE is more common in women with hypertension, kidney disease, disorders of lipid metabolism. In group I, 1.5 times more frequent chronic hypertension cardio psychoneurosis of hypertensive type (58% and 25.8%, respectively, in the 1st and 2nd group); 2 times — disorders of lipid metabolism 50% and 25.3%, 1.5 times more kidney disease (24.3% and 12.8%). Data analysis obstetric — gynecological history led to the conclusion that 55% of the development of early PE contributed to chronic inflammatory diseases of the uterus and appendages, 15% — infertility. Also, patients in Group 1 had a complicated obstetric history: 38% — medical abortion at 28.2% spontaneous abortions (in the 2nd group — 21% and 9.5%). When analyzing the current II trimester, we observed that women in Group 1 almost 3 times more likely to pregnancy in these terms difficult threatened abortion. In the III trimester of pregnancy in patients in Group 1 noted more frequent development of placental insufficiency, hypamnion.

A comparative analysis of clinical and laboratory data allowed to clarify the features of preeclampsia in early his early (before 30 weeks) and long duration in comparison with the later development of PE.

In group 1, 70% of the most early symptoms of hypertension and PE were protenuriya. In the 2nd group received some other data: protenuriya hypertension as the most early symptoms was 42% and 68% PE started with abnormal weight gain and edema, which proves easier for PE in the group.

Analysis of laboratory data confirmed the heavier for the duration of PE. No significant differences between the levels

of hemoglobin, red blood cell count in the 1st and 2nd group we have not found.

In addition, one group of pregnant women with long-term current PE activation of blood coagulation was more pronounced:

- Prothrombin index was higher in the 1st — group on average 104.8% compared to the normal in group 2 (95.5)
- Fibrinogen concentration was also slightly higher in Group 1 — the average, 5.5 g/l (4,1g/l in the 2nd group).

About infringements in the homeostatic system is also evidenced by reduction in the number of platelets in patients of both groups, more pronounced in the long course of PE — up to $146 \times 106/L$ compared to $217 \times 106/l$ in the 2nd — group. Assessment of liver function in a group of pregnant women with a long history of PE in all patients noted hypoproteinemia — the average level of total protein in the blood was 57.4 g/l. Liver enzymes in average in both groups were normal. Only at 4.5% in the 1st group marked rise in AST and ALT, which corresponds to the most severe course of PE.

In the analysis of the concentration of kidney function in almost 58% of pregnant women in Group 1 was set nocturnal. In the second group nocturnal were recorded in 25%. When analyzing the data obtained Doppler. We studied left ventricular myocardial mass (LVM). In the II trimester of average values of the actual LVM and LVMI of patients with long-standing severe PE significantly exceeds the same index of women with mild PE which has acceded to the term 34 or more weeks. The average value of LVM patients with mild PE was significantly lower than in women with severe PE — 145 (128–150) and 155 (116–172), respectively. Using criteria developed by JD Kobalava et al. (2003) with respect to the coefficient of disproportionally (KD) is calculated as the ratio of the actual due to LVM LVM and multiplied by 100%, we have found that a disproportionate LVM is the prerogative of pregnant women with long-standing severe PE. Thus, the disproportionate LVM with severe PE marker appears inadequate cardio — vascular reconstruction.

The progressive increase in LV myocardial mass is determined not only significantly greater amount CD in pregnant women with severe preeclampsia. Thus, the disproportionate LVM with severe PE marker appears inadequate cardio — vascular reconstruction.

The progressive increase in LV myocardial mass is determined not only significantly greater amount CD in pregnant women with severe preeclampsia, but also accompanied by changes in the geometry of the left ventricle with the formation of concentric hypertrophy and concentric remodeling, leading to dysfunction and poor prognostic risk factor for long-term and severe preeclampsia, but also accompanied by changes in the geometry of the left ventricle with the formation of concentric hypertrophy and concentric remodeling, leading to dysfunction and poor prognostic risk factor for long-term and severe preeclampsia.

Analysis of complications in childbirth as evidence of long-term adverse effects on the mechanisms of the current PE prepare the body for childbirth, during labor process and its outcome for mother and fetus.

After examining all the long-term complications of the current PE, the following data: the long-term course of this disease development impending eclampsia with a clear neurological symptoms observed in 2 times more likely to eclampsia is 4 times more likely to premature detachment of normally situated placenta — 5 times more bleeding — in 3 times more likely to fetal malnutrition — 6 times more often. Long for PE has an extremely adverse effect on prenatal outcomes. Our data show that fetal hypotrophy, as stated above, occurred in 43.3% in Group 1 and 6.9% in the 2nd group. The average weight of newborns in group 1 amounted to $2800,0 \pm 400$ g in the 2nd — 3480 ± 385 g in chronic hypoxia group 1 60.3% of infants were born. In the 2nd group were born in a state of hypoxia 18.2% of newborns.

So long for PE affects changes -laboratory clinical data generated DIC — syndrome as a reflection of nonspecific reaction of the homeostasis system, disrupted the balance between coagulation and anticoagulation mechanisms contribute to the development of coagulopathic syndrome and massive obstetric hemorrhage. Long PE for creating the most unfavorable conditions for the development of the fetus, reducing its adaptive capabilities increases the frequency of low birth weight, prenatal pathology increases. Pregnant with the beginning of PE to 30 weeks and the duration of its passage must be under strict supervision of an obstetrician-gynecologist and resuscitation.

References:

1. Shouters PV, Vasok Yu, Kopeleva MV, Shouters OV Left ventricular hypertrophy as a target for therapeutic intervention. Diagnosis and treatment//Heart. – 2008. – T.7, № 6. – S. 324–334.
2. Kuzmin VN Preeclampsia in pregnant women. Questions diagnosis and obstetric tactics/VN Kuzmin//attending vrach.- 2003. – № 9. – 70–73.
3. Shalin RI Preeclampsia in modern obstetrics/RI Shalin//Modern technologies in the prevention of perinatal and maternal mortality: Abstracts Proc. Plenum assoc.. Obstetricians and Gynecologists. – M.: MEDpress, 2000. – 273–274.
4. Afifi Y. Pharmacological treatment of hypertension in pregnancy/Y. Afifi, D. Churchill. Curr Pharm Des 2003; 9:1745–53.
5. Belfort MA, Anthony J. Nimodipine Study Group. A comparison of magne sium sulfate and nimodipine for the prevention of eclampsia/M. A. Belfort, J. Anthony. N Engl J Med 2003 23; 348: 304–11.
6. Brown M. A. Efficacy and safety of nifedipine tablets for the acute treatment of severe hypertension in pregnancy/M. A. Brown, M.X. Buddie, T. Farrell T. Am J Obstet Gynecol 2002; 187: 1046–50.

7. Staessen, J. A. Cardiovascular prevention and blood pressure reduction/J. A. Staessen//J Hypertens. – 2003. – № 21. – P. 1055–1076.
8. Schannwell C. M., Schoebel F. C., Zimmermann T., et al. Left ventricular diastolic function in normal pregnancy. A prospective study using M-mode echocardiography and doppler echocardiography//Dtsch. Med. Wochenschr. – 2000. – V. 125. – P. 1069–1073.

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The role of immunological mechanisms in the progression of disease in patients with chronic ischemia of the brain against the background of hypertension and atherosclerosis

Abstract: The study of chronic brain ischemia pathogenesis showed that in cases of CBI of hypertonic genesis the levels of proinflammatory cytokines were significantly increased, particularly IL-6.

Keywords: chronic brain ischemia, proinflammatory cytokines, atherosclerotic and hypertonic genesis.

In our days the brain vascular diseases remain to be the focus of attention of the society due to highly alarming epidemiological situation in relation to morbidity rate of stroke in Uzbekistan as well as due to catastrophic consequences of various forms of cerebrovascular pathology for physical and psychical health of nation [1]. The multiple large-scaled investigations showed that arterial hypertension (AH) and atherosclerosis of the cerebral vessels appeared to be the main cause and the most important factor of chronic brain ischemia (CBI) [3; 8; 9]. They occupy the key role in the vascular dementia [1; 5; 7]. Many examinations indicated about participation of inflammation in the atherogenesis and development of chronic brain ischemia [4; 9]. Even at the relative functional preservation in the patients with CBI the autoimmunization develops to the structural components of the nervous tissue which depends both on the antigens released out of hematoencephalic barrier and on damaged complex regulation of the neuroimmune system, determining immune homeostasis [6; 10]. However, the role of immune connecting inflammatory process as potential universal ingredient of the CBI pathogenesis of various genesis seems to be unspecified.

Purpose. To study proinflammatory cytokines IL-1 β , TNF- α and IL-6 in the peripheral blood serum of the patients with CBI with regard to its genesis (hypertonic and atherosclerotic), as well as to AH stage and duration.

Materials and methods. We have studied some proinflammatory cytokines, that is, IL-1 β , TNF- α and IL-6 in the serum of peripheral blood from 84 patients with CBI according to its genesis (hypertonic and atherosclerotic). All studied patients were divided into 2 groups in relation to pathogenesis of CBI. Group 1 included 53 (63,1%) patients with CBI, developing predominantly at the basis of AH. According to the classification of arterial hypertension by the level of AP and to the Guidelines of the Russian Society on arterial hypertension and All-Russian Scientific Society of Cardiologists (the 3 revision,

2008) [2] we divided patients of group 1 into 3 subgroups: 21 patients with AH Stage I, 22 patients with AH stage II and 10 patients with AH stage III. The arterial hypertension was divided according to the duration: AH stage I — to 5 years of duration in 10 patients, more than 5 years — 11 patients; AH stage II with duration to 5 years — 12 patients, more than 5 years — 10 patients. Group 2 comprised of 31 (36,9%) patients with CBI developing predominantly associated with atherosclerosis. Control group consisted of 29 practically healthy donors with purpose to compare the immunological characteristics. Measurements of the contents of cytokines (IL-1 β , TNF- α and IL-6) in the serum of peripheral blood were performed with method IFA — assays with commercial test-systems (Vector-Best), Novosibirsk, RF, 2013. Statistic processing was made on the PC "Pentium-4.

Results and discussion. Comparative analysis of the level of proinflammatory cytokines in the patients with CBI in the both groups revealed presence of reliable difference with parameters of control group. The content of IL-1 β in the blood serum of patients with CBI was reliably increased by 1,51 times ($P < 0,05$) and 1,28 ($P < 0,05$) times, in comparison with practically healthy persons, respectively, in group 1 and 2. It being interested that high content of IL-1 β was diagnosed in the patients of group I: increased by 1,18 ($P < 0,05$) times in comparison with characteristics of the patients with CBI of atherosclerotic genesis: in group I the content of IL-1 β accounted for $14,9 \pm 0,86$ pg/ml, while in group 2 — $12,71 \pm 0,58$ pg/ml.

According to the literature data IL-1 β is multifunctional cytokine with wide spectrum of effects, plays key role in the development and regulation of non-specific body defensive system and specific immunity, one of the firsts is included into the body defensive response during exposure to pathogenic factors. The macrophages and monocytes as well as lymphocytes and fibroblasts are the main producers of IL-1 β . The