Prevention of complications of pregnancy and childbirth of patients with a burdensome gynecological anamnesis

T.P. Andriichuk
Kyiv Medical University

The objective: determination of the effectiveness of prevention and medicinal correction of placental dysfunction in pregnant women with chronic salpingo-oophoritis.

Materials and methods. The study included 100 pregnant women (basic group) with chronic salpingo-oophoritis, of these, I group (50 women) included patients who received proposed treatment and prevention approach, II group (50 women) received a common set of treatment and prevention measures. The proposed treatment-and-prophylactic approach included prophylactic administration to pregnant women with chronic salpingo-oophoritis from the 8th to the 10th and from the 16th to the 18th week inclusive of natural micronized progesterone at a dose of 100 mg intravaginally twice a day for two weeks. Venotonik and angioprotector were prescribed prophylactically at dose 600 mg from 18 weeks to 37-38 weeks of pregnancy. For therapeutic purposes (blood flow disorders in the uterine arteries and vessels of the umbilical cord that are determined by Doppler), the drug was prescribed at dose 600 mg twice a day for 3–4 weeks.

Results. A lower frequency of obstetric and perinatal complications was found in the women in I group than in the patients in the II group. Thus, the rate of placental dysfunction was 6.0±3.36% vs. 34.0±6.7%, respectively, oligohydramnios – 6.0±3.36% and 12.0±4.59%, polyhydramnios – 10.0±4.24% and 22.0±5.86%, fetal distress during childbirth – 6.0±3.36% and 14.0±4.91%, cesarean section – 12.0±4.6% and 24.0±4.27%.

In the group of patients with treatment-and-prophylactic approach, the mean of the body weight of newborns was 3486.7±312.71 g, and in women who received a common set of treatment-and-prophylactic measures – 3099.8±295.69 g. The mean of the assessment of the condition of newborns by the Apgar scale at the 1st minute – 7.92±1.54 and 6.81±1.16 points, respectively.

Conclusions. The use of micronized natural progesterone and the drug diosmin 600 mg in pregnant women with a history of chronic salpingo-oophoritis reduces the rate of obstetric and perinatal complications during pregnancy.

Keywords: pregnancy, chronic salpingo-oophoritis, placental dysfunction, prevention, treatment.
Цель исследования: определение эффективности профилактики и медикаментозной коррекции плacentарной дисфункции у беременных с хроническим сальпингоофоритом.

Материалы и методы. В исследование вошли 100 беременных (основная группа) с хроническим сальпингоофоритом. Из них в I группу (50 женщин) включены пациентки, которые получали предложенный нами лечебно-профилактический подход, и II группу — 50 женщин, получавших общеукрепляющий комплекс лечебно-профилактических мероприятий.

Предложенный нами лечебно-профилактический подход предусматривал профилактическое назначение беременным с хроническим сальпингоофоритом с 8-й по 10-ю и с 16-й по 18-ю недели включительно препарата натурального микронизированного прогестерона в дозе 100 мг интравагинально дважды в сутки в течение двух недель. Витамин В и антигипертензивный препарат назначали профилактически по 600 мг с 18-й недели до 37–38 нед беременности. С лечебной целью (доплерометрически определяются нарушения кровообращения в маточных артериях и сосудах пуповины) препарат назначали по 600 мг дважды в сутки в течение 3–4 нед.

Результаты. У женщин I группы установлено более низкую частоту акушерских и перинатальных осложнений относительно пациенток II группы. Так, частота плacentарной дисфункции составила 6,0±3,36% против 34,0±6,7% соответственно, маловодия — 6,0±3,36% и 12,0±4,59%, многоводия — 10,0±4,24% и 22,0±5,86%, дистресса плода во время родов — 6,0±3,36% и 14,0±4,91%, кесарева сечения — 12,0±4,6% и 24,0±4,27%.

В группе пациенток, которым предлагался лечебно-профилактический подход, масса тела при рождении ребенка была 3486,7±312,71 г, а у женщин, получавших общеукрепляющий комплекс лечебно-профилактических мероприятий, — 3099,8±295,69 г. Средняя оценка состояния новорожденных по шкале Апгар на 1-й минуте — 7,92±1,54 и 6,81±1,16 балла соответственно.

Заключение. Применение микронизированного натурального прогестерона и препарата диосмин 600 мг у беременных с хроническим сальпингоофоритом в амнистике способствует снижению частоты акушерских и перинатальных осложнений беременности.

Ключевые слова: беременность, хронический сальпингоофорит, плacentарная дисфункция, профилактика, лечение.
were used for multidimensional analysis. Standard statistical methods of Windows programs were programmed by the authors. Data processing was performed on a personal computer, which led to a significant reduction in the frequency of negative changes in the fetoplacental complex.

The analysis of the data presented in the table testifies to the advantages of our proposed approach to the prevention of PD in pregnant women with chronic salpingo-oophoritis. This is evidenced by the indicators of SDR in Group I, which are as close as possible to the corresponding indicators in the control group.

The effectiveness of both methods was evaluated by clinical, laboratory and hardware research methods compared with the corresponding indicators in healthy pregnant women.

The obtained results were processed by the methods of variation statistics: absolute values — using Student’s criterion (t), relative values (%) — non-parametric Angular transformation criterion (f). The level of probability of error-free prediction was limited by the t-test, respectively ≥2 and P≥95% or to assess the probability characteristics of the results of any of the statistical methods used 0.001<p<0.05. Data processing was performed on a personal computer, some of the statistical methods are programmed by the author. Standard statistical methods of Windows programs were used for multidimensional analysis.

**RESULTS AND DISCUSSION**

The results of the analysis of cardiotocography (CTG) indicators testifies to the advantages of our proposed approach to the prevention of PD in pregnant women with chronic salpingo-oophoritis. This can be stated on the basis of a significant (p<0.05) improvement in the frequency of oscillations in Group I (6.7±0.7), compared with Group II (3.9±0.6). Other CTG values in group I were also closer to those in healthy pregnant women. A characteristic feature of fetal CTG in mothers with chronic salpingo-oophoritis who received conventional therapy is the presence of decelerations, which are significantly (p<0.05) more often found in Group II of the examined women.

The total score of CTG in fetuses on the Fisher scale also mostly improved after the proposed therapy and was 8.2±0.72 points, which did not differ significantly from the control group (8.9±0.22 points). After conventional therapy, the score on the Fisher scale was significantly zero (7.5±0.51), compared with the control.

The score in the main group — 7.2±0.24 points, which is significant (p<0.05) lower than in the control, which indicates the intensity of compensatory reactions of the fetus and the development of its distress.

The results of the study of the biophysical profile of the fetus progesterone and diosmin 600 mg. 86.0% of women in group I and 66.0% in group II received a score of 10–12 points, 8–9 points — 14.0% and 26.0%, respectively. In the group with conventional therapy, 8.0% of pregnant women had a score of 6–7 points.

All components of the A.Vintzileos scale in group I approached the corresponding level of indicators in the control group. In the group of patients who were observed using conventional approaches, the scale (heart rate after non-stress test, amniotic fluid volume, placental maturity) was significantly lower (p<0.05), compared with the corresponding indicators in the control group of patients.

The results of determining the spectra of systolic-diastolic ratio (SDR), in the fetal aorta, umbilical vessels and uterine artery are shown in table 1. The analysis of the data presented in the table testifies to the advantages of our proposed approach to the prevention of PD in pregnant women with chronic salpingo-oophoritis. This is evidenced by the indicators of SDR in Group I, which are as close as possible to the corresponding indicators in the control group, and SDR in the vessels of the umbilical cord in this group is significantly lower than in the Group II.

Complicated pregnancy was registered in 96.0% of patients in the Main group and 38.0% of women in the Control group.

Characterizing the structure of pregnancy complications after the proposed and generally accepted approach to pregnancy management in patients with chronic salpingo-oophoritis, it should be noted that the incidence of pregnancy complications in women of group I who received the proposed measures was much lower, which could be compared with control. In patients who used the conventional approach, the frequency of pregnancy complications was almost the same as in the Main group.

Characteristics of changes in the placental complex of the examined patients are shown in table 2. The analysis of the data given in the table convincingly proves the positive effect of our proposed measures on the state of the fetoplacental complex and a significant reduction in degenerative changes. Prophylactic administration of micronized natural progesterone and metabolic drug in pregnant women with chronic salpingo-oophoritis has led to a significant reduction in the frequency of negative changes in the fetoplacental complex.
The main complications of childbirth in our examined patients after the application of treatment and prevention measures are shown in Table 3.

The analysis of the data given in the table shows that in pregnant women who received our proposed treatment and prevention complex, the frequency of complications of childbirth was significantly reduced compared to patients who followed the generally accepted approaches. Thus, the frequency of pathological preliminary period, secondary weakness of labor, fetal distress, the frequency of cesarean section and vacuum extraction of the fetus and the frequency of pathological blood loss decreased by 2 times or more.

The obtained data on the average score of newborns on the Apgar scale in the examined patients are given in Table 4.

The better condition of newborns in women who received the proposed complex indicates its benefits. The score on the Apgar scale at the first and fifth minutes was 1 point higher in these children compared with newborns from mothers who received a conventional treatment and prevention complex for the prevention of PD.

There is an increase in the average weight of newborns in women of the Group I (3486.7±312.71), compared with the Group II — 3099.8±295.69 (almost 400 g). This further indicates the benefits of the proposed measures and the development of fruits in more favorable conditions.
The average score on the score of newborns on the Apgar scale in the examined groups, M±m

<table>
<thead>
<tr>
<th>Surveyed groups</th>
<th>In the 1st minute, points</th>
<th>In the 5st minute, points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant women with chronic salpingo-oophoritis, n=100</td>
<td>6.34±0.14*</td>
<td>7.58±0.1*</td>
</tr>
<tr>
<td>Group I, n= 50</td>
<td>7.92±1.54</td>
<td>8.36±1.44</td>
</tr>
<tr>
<td>Group II, n= 50</td>
<td>6.81±1.16</td>
<td>7.23±1.64</td>
</tr>
<tr>
<td>Control group, n=50</td>
<td>8.36±0.09</td>
<td>8.92±0.12</td>
</tr>
</tbody>
</table>

Note. * — p <0.05 between indicators in the Main and Control group.

**CONCLUSION**

Our analysis of the peculiarities of pregnancy, childbirth, fetal status and newborns in women with chronic salpingo-oophoritis, who followed the proposed and generally accepted approach to pregnancy, indicates significant benefits of inclusion in the complex of natural micronized progesterone and metabolic drugs. A significant reduction in complications of pregnancy and childbirth, higher weight and Apgar score indicate the normal functioning of the fetoplacental complex in patients who adhered to the proposed treatment and prevention complex.

Thus, the use of micronized natural progesterone and the drug diosmin 600 mg in the treatment of pregnant women with chronic salpingo-oophoritis can significantly reduce the incidence of complications during pregnancy and childbirth, as well as improve the condition of newborns.

The direction of further research, in our opinion, may be to improve the treatment of chronic adenitis during the preparation of women for pregnancy. Qualitative therapy of chronic salpingo-oophoritis will promote the normal course of adaptive mechanisms of women in early pregnancy, the physiological course of the first and second wave of syncytiotrophoblast invasion and prevention of PD in patients with chronic salpingo-oophoritis.