HYPERTENSIVE DISORDER IN PREGNANCY

1. **Topicality.** This topic is relevant for future physicians as family medicine and obstetrician-gynecologists and for dentists because patients in these categories doctors quite often pregnant women. But early diagnosis and prevention of gestosis pregnant reduces maternal mortality and perinatal morbidity. Knowledge of algorithm acts doctor in the cases of eclampsia saves the patient's life.

2. **Specific objectives:**

   Analyze the causes complications gestosis pregnant.
   Explain the theory of gestosis pregnant.
   Consider risk factors gestosis pregnant and identify women at risk for the occurrence of gestosis
   Gestosis classify the degree of severity. Interpret data of laboratory and instrumental methods of analysis.
   Draw up a treatment regimen gestosis depending on the severity.
   Analyze the causes of perinatal morbidity of this pathology.
   To make the algorithm acts of the doctor in case of an attack of eclampsia, tactics for selecting the method of delivery depending on the obstetric situation.

3. **Basic knowledges, skills necessary for studying the topic (interdisciplinary integration).**

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<thead>
<tr>
<th>The names of the preceding disciplines</th>
<th>The skills</th>
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<td>1. Propaedeutics.</td>
<td>Describe syndromes and symptoms of this nosology.</td>
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<td>2. Pharmacology.</td>
<td>Calculate the required dose of the drug required per day in the treatment of this disease, to determine the side effects and contraindications of drugs.</td>
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<td>3. Laboratory diagnosis</td>
<td>Apply the necessary laboratory methods for the diagnosis of pathological abnormalities in the body of this pathology, have the ability to interpret the results of laboratory tests.</td>
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<td>4. Obstetrics</td>
<td>Classify the types of gestosis, depending on gestational age, identify this pathology among other diseases, compare types of delivery,</td>
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More patients requiring intensive therapy, which consists of the introduction of glucocorticoid drugs (at least 1 g of prednisolone per day), the introduction of immunoglobulins, hepatoprotective substances. Appropriate use of alternative therapies (eg, plasmapheresis).

In the CNS: brain edema, intracranial hemorrhage. Pathophysiological changes at HELLP-syndrome generally takes place in the liver. Segmented vasoconstriction leads to hepatic blood flow disturbance and gleason capsule stretch (pains in the upper part of the abdomen). Hepatocellular necrosis conditions transaminases increase.

Thrombocytopenia and hemolysis are caused by endothelium damage in the obstructively altered vessels. If this vicious circle, consisting of endothelium damage and intravascular activation of the coagulation system, is not broken, within a couple of hours there develops thrombohemorrhagic syndrome (THS) with fatal hemorrhage.

Pregnancy Hypertension Management

*Monitoring of the condition of pregnant women with hypertension:*
1. Examination in the antenatal clinic with taking ABP till 20 weeks of pregnancy twice per three weeks, from "20 to 28 weeks — once a fortnight, after 28 weeks — every week.
2. Detecting daily proteinuria on the first visit to the antenatal clinic, from 20 to 28 weeks — once a fortnight, after 28 weeks — weekly.
3. Daily domiciliary self-checking of ABP.
4. Examination of the oculist on the first visit to the antenatal clinic, at 28 and 36 weeks of pregnancy.
5. ECG on the first visit to the antenatal clinic, at 26—30 weeks and after 36 weeks of pregnancy.
6. Ultrasonography of the fetus and placenta in the period of 9—11 weeks, 18—22 weeks, 30—32 weeks.
7. Actography (fetal movements test) — daily after 28 weeks of pregnancy.

If necessary, examination may be extended, conducted earlier and in other terms.

*Contraindications to carrying of a pregnancy to 12 weeks:*
1. Severe arterial hypertension (the 3rd degree).
2. Severe damages of target organs caused by arterial hypertension:
   - of the heart (myocardial infarction, cardiac insufficiency);
   - of the brain (stroke, transient ischemic attack, hypertensive encephalopathy);
**Delivery.** If hypertension is controllable and there are no other complications, delivery is conducted through the natural maternal passages.

Cesarean section is carried out routinely at:
- uncontrollable severe hypertension;
- target organs affection;
- severe uterine fetal growth delay.

The third stage of delivery is conducted actively. The usage of ergometrine and its derivatives in patients with arterial hypertension is contraindicated. In the puerperal period there is provided thorough follow-up of the therapeutist, daily control of ABP, examination of the eye grounds, proteinuria and blood creatinine detection.

Contraindications to lactation include malignant hypertension, severe affections of target organs. Temporary contraindications — uncontrollable hypertension.

**Preeclampsia Management**

**Preeclampsia development prevention:**

1. Acetylsalicylic acid 60—100 mg/day, beginning from 20 weeks of pregnancy.
2. Calcium drugs 2 g/day (in terms of elementary calcium), beginning from 16 weeks of pregnancy.
3. Including marine products with a high content of polyunsaturated fatty acids into the food ration.

**Preeclampsia Diagnostics**

Preeclampsia diagnosis is rightful at the term bigger than 20 weeks of gestation, ABP more than 140/190 mm Hg, or in case of diastolic arterial pressure rise by 15 % from the initial in the 1st trimester of pregnancy with proteinuria present (protein in daily urine more than 0.3 g/L) and generalized edemata (body weight increase by more than 900 g per week or 3 kg per month).

Only the value of diastolic ABP is used as a criterion of hypertension severity in pregnant women, indications to the beginning of anti-hypertensive treatment and the criterion of its effectiveness.

**Table 4. Additional Preeclampsia Clinicolaboratory Criteria**

<table>
<thead>
<tr>
<th>Signs</th>
<th>Mild preeclampsia</th>
<th>Moderate preeclampsia</th>
<th>Severe preeclampsia</th>
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