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PREECLAMPSIA AND HESTOSIS AS PREDICTORS OF FUTURE CEREBROVASCULAR DISEASES IN PREGNANT WOMEN

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Group of hypertensive disorders among pregnant women is the most widespread hestosis and includes the following diseases: a gestational hypertension, a preeclampsia (PE) and an eclampsia. According to the term in Ukrainian MOH decree, PE is hypertension which arises after 20 weeks of pregnancy and includes proteinuria more than 0,3 g/l, also may include thrombocytopenia, renal insufficiency and pulmonary oedema. PE complicates 3-5% of first pregnancies and 5-10% of subsequent pregnancies. Several studies of later life of women underwent PE showed increasing of risk of arterial hypertension, ischaemic heart disease, cerebrovascular disorders, cognitive impairment, dementia and Alzheimer`s disease. 15,5% of direct maternal deaths were caused by hypertensive disorders of pregnant women in UK, and more than half of them had eclampsia. 75% of maternal death in Europe were due to cerebral emergencies. One of the target-organ of PE is brain, women with recurrent PE have from two-fold to four-fold increased risk of cerebrovascular accident (both ischaemic and haemorrhagic). The purpose of this review is to collect information about this problem, form a new view on it, consider its potential and point out a significance of co-working of obstetricians-gynecologists with therapists and neurologists. Materials of this work are taken from the several newest foreign and Ukrainian articles. The pathophysiology of PE is complicated, it starts with abnormal trophoblast invasion to spiral arteries in uterine during implantation, it leads to ischaemia in placenta, burst 194 of proinflammatory and antiangiogenic factors into the maternal blood circulation and altering of macrophages. All these systematic changes lead to local modifications in brain such is neuroinflammation (activation of macrophages in central nervous system) and result in disruption of blood brain barrier, alteration of endothelium in brain vessels, decreasing in quantity of working neurons and glial cells (a general size of the brain is decreasing among women underwent PE). These pathological changes end with alteration of white and gray matters, hypoperfusion of brain and higher risk of developing of stroke and could be collected in one term – “hypertension-related small vessel disease”. Normally brain is able to regulate BP independently but mentioned changes inhibit it. Hypertension also affects cerebral autoregulation with following mechanisms: myogenic tone alterations and inward vessel remodeling with an increasing of wall-to-lumen ratio by reactive oxygen forms. The last mechanism is provided by loss of smooth muscle cells in media and narrowing of the lumen by deposited fibrohyaline. The management of such patients includes: for women ≥37 weeks with mild PE, delivery is recommended. For women with severe PE, delivery is recommended ≥34 weeks. Serious end-organ disfunction in any gestational age is indication for urgent delivery. Patients should measure BP twice a day at home and twice a week in the clinic, increasing of BP for more than 140 mmHg is an indication for hospitalization. Antihypertensive therapy is indicated if systolic BP ≥150 mmHg and diastolic BP ≥100 mmHg constantly. Labetalol or hydralazine i/v is recommended as the first-line therapy. Store risk can be reduced by long-term use of aspirin. To sum up, preeclampsia and hestosis could be the predictors of future cerebrovascular diseases because several researches showed an increased association of PE with cardiovascular diseases, CVA as well, and also neurodegenerative diseases. Main pathophysiological base of PE influence on brain is systemic inflammation, cerebrovascular damage and neuroinflammation. Multidisciplinary team is able to improve management of such problems