THE ROLE OF EEG BRAIN MAPPING IN QUANTIFICATION OF BRAIN DAMAGE IN HYPERTENSIVE DISEASE ASSOCIATED WITH PREGNANCY

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THE ROLE OF EEG BRAIN MAPPING IN QUANTIFICATION OF BRAIN DAMAGE IN HYPERTENSIVE DISEASE ASSOCIATED WITH PREGNANCY (Abstract): The existence of a high blood pressure during the pregnancy represents a real danger for the mother and child, responsible for damage of the kidney, brain, liver, and placenta, cardiovascular and hormonal system. Nervous system changes can include blurred vision, seeing spots, severe headaches, convulsions, brain hemorrhage, and even occasionally blindness. **Aim:** To evaluate the spatial distribution of electroneuro-pathological aspects of brain activity at pregnant women with hypertensive disease by BEAM (Brain Electrical Activity Mapping).

**Material and methods:** Twenty pregnant women (week 20 to 39) with hypertensive disease were recruited. Healthy pregnant women were also recruited control group. Maternal monitoring included spectral multichannel EEG analysis (brain mapping), repeated clinical examinations and laboratory investigations. **Results:** The major EEG changes observed were focal slowing of the background activity (14 patients) - occipital lobes especially, and intermittent spike and sharp wave transients (5 patients). **Conclusions:** Our findings indicate that EEG brain mapping are probably sensitive in detecting the extent of the pathology in the brain in women with in hypertensive disease associated with pregnancy. **Key words:** PREGNANCY, BRAIN MAPPING, HYPERTENSIVE DISEASE.

High blood pressure (hypertension) during pregnancy - whether is developed before or after conception - requires a special care. Hypertensive disorders occur in 6 to 12% of pregnancies and contribute significantly to stillbirths and neonatal morbidity and mortality, also representing the second leading cause, after embolism, of maternal mortality. There are four distinct types of high blood pressure that can complicate pregnancy: 1) chronic hypertension; 2) preeclampsia-eclampsia; 3) preeclampsia superimposed upon chronic hypertension; 4) gestational hypertension (1, 2, 3).

Expectant mothers with hypertension are predisposed to the development of potentially lethal complications, notably *abruptio placentae*, disseminated intravascular coagulation, cerebral hemorrhage, hepatic failure, and acute renal failure. The etiology of most cases of hypertension during pregnancy, particularly preeclampsia-eclampsia...