

Abstract

The present diploma thesis is focused on the evaluation of steroid metabolome in body fluids in human pregnancy and parturition and also concentrates on the estimation of steroids in men with epilepsy (MWE) regarding the influence of epilepsy and its treatment with antiepileptic drugs (AEDs).

The results obtained eventuate to the following conclusions:

1. They support the proposition about the key importance of corticoliberin for the timing of human parturition via stimulation of the steroidogenesis in the fetal zone of the fetal adrenal (FZ). Changes in steroid levels, however, much better predict the timing of parturition than the variation in corticoliberin.
2. The distribution of isoforms of placental oxidoreductases determines the excess of oxidized forms of the sex steroids and NAS in the fetus and the excess of their reduced forms in mother. This mechanism fundamentally affects the steroid bioactivity. The results indicate the role of NAS in pregnancy sustaining, their analgesic effect around parturition and their role in the pathophysiology of postpartum blues.