

Preeclampsia is a clinical syndrome found uniquely in a pregnant patient with an incidence 2 – 8 % of pregnancies worldwide. It is defined as the new onset of hypertension and proteinuria after 20 weeks of gestation, resolving with delivery or soon thereafter. Its worst consequences are eclampsia with tonic and clonic seizures and possibly coma. Also pulmonary edema, CNS hemorrhage, anaemia, hepatorenal failure, circulation failure and other complications can occur. In its most severe form, it affects nearly every organ. Preeclampsia remains a major cause of premature delivery and both maternal and neonatal mortality and morbidity. The origin and the cause of the disease remain unknown and therefore the medical treatment focuses only on clinical manifestations. Timely prediction of preeclampsia would enable accurate therapeutic treatment and a decrease of the threat to maternal and fetal health. In this study, the most important predictive biomarkers of PE and their relevance in the first trimester of gestation are presented. Furthermore, a first trimester screening with the best prediction rates is described.