

PREECLAMPSIA

BIOMARKERS, IMITATORS AND COMPLICATIONS

ABSTRACT

Hypertension in pregnancy is the leading cause of maternal death and morbidity in developing countries. Chronic hypertension as part of hypertension in pregnancy is less commonly found but contributes to poor maternal and neonatal outcomes. Many studies have been published about these problems worldwide. However, the condition of chronic hypertension in Indonesia was never published before. We performed a study in Dr. Soetomo General Hospital (2013-2017), to evaluate the effect of severity of chronic hypertension in pregnancy on maternal and perinatal outcomes in our population (first publication). Preeclampsia, as the primary type of hypertension in pregnancy, leads to 70.000-80.000 maternal death and 500.000 perinatal deaths annually. The clinical manifestations and management of Preeclampsia have been studied extensively worldwide. The pathogenesis of Preeclampsia is still an area of debate. sFlt-1 (soluble FMS-like tyrosine kinase-1) is the major antiangiogenic factor that is involved in the development of Preeclampsia. HO-1 (Heme Oxygenase-1) is a protective factor that can reduce the production and release of sFlt-1 from endothelial cells. We performed a study to evaluate the role of sFlt-1 and HO-1 in early-onset and late-onset Preeclampsia and its association with maternal-neonatal outcomes (second publication). Preeclampsia, because of its circulating toxic factors, can manifest in multi-organ and develop some specific complication. One of the most critical complications is HELLP syndrome (hemolysis, elevated liver enzyme, and low platelet count). Besides, many microangiopathic diseases that may occur during pregnancy can mimic HELLP syndrome, such as

Acute Fatty Liver of Pregnancy (AFLP). In the third publication, we performed a study about the clinical characteristics of AFLP in Dr. Soetomo Hospital (2011-2015).

Keywords: Hypertension in Pregnancy, Chronic Hypertension, Preeclampsia, Heme Oxygenase-1, Acute Fatty Liver of Pregnancy