Objective
Preeclampsia is characterized by an increase in high blood pressure and decrease in GFR and proteinuria, however, the underlying mechanisms are still unclear. Renalase is a recently discovered protein implicated in regulation of blood pressure in humans.

Methods
Plasma concentrations of serum renalase were measured in healthy controls (n=40), and healthy pregnant (n=40) and pregnant with preeclampsia (n=40) matched for age, gestational age, in the third trimester of pregnancy. Serum renalase levels were compared in pregnant with and without preeclampsia and non-pregnant controls. Factors associated with serum renalase levels in pregnancies were also evaluated.

Results
In healthy pregnant serum renalase levels were significantly higher than in controls. However, pregnant with preeclampsia had lower renalase levels than healthy controls. Serum renalase levels were inversely associated with blood pressure levels and positively correlated with glomerular filtration rate.

Conclusion
The results indicated that the development of preeclampsia in pregnant is accompanied by altered serum renalase levels. High blood pressure and kidney damage that characterize this disorder are mediated at least in part by low renalase levels.