Summary

This study was designed to study maternal serum TNF-α and IL6 levels in early , mid and late trimester in pregnant women, to describe changes in concentration from early to mid and late pregnancy, and assess the effect of age and BMI on cytokines level, and correlate any complications specially preeclampsia reported in this pregnancy with cytokines level.

In this study fifty healthy primigravidae were subjected to Full history ,clinical examination ,and screening tests (urine ,CBC, u/s),IL-6 ,TNF-α concentration (by ELISA)were done for every woman in each trimester . Five of them had complicated pregnancy with preeclampsia

The result of the present study showed a significant increase of levels of IL-6 with gestational age, and stable production of TNF-α from early to late pregnancy .

These results confirm that The overall decrease in pro-inflammatory cytokines and increase in counter-regulatory cytokines as uncomplicated pregnancy progresses supports the evolving concepts of immunoregulation for the maintenance of a viable pregnancy.

In this study , serum concentration of Plasma IL-6 was significantly increased in second and third trimester in

preeclamsia , and TNF-α levels were significantly increased in third trimester in the preeclamsia . These findings point to the importance of IL-6 and TNF-α in the pathophysiology of preeclampsia.

Our study showed that IL-6 and TNF-α production increase with age .While there was no difference in levels between obese and normal or overweight pregnant women. Results suggest maternal factors may partly account for the inter-women variation in pregnancy cytokines levels .

We observed positive correlations between cytokines, both in early, mid ,and late pregnancy