Introduction

Cytokines are low molecular weight extra cellular proteins secreted by immne and inflammatory cell ; they are devided into 6 groups, interleukines ,colony stimulating factors, interferons, tumour necrosis factors , growth factors and chemokines. ***(Seki et al .,2007)***

Cytokines are pleotropic , acting on different cell types. Generaly the effect of cytokines is paracrin, autocrine and endocrine and their presence in peripheral venous blood may reflect remote diseases e.g candidiasis and acute sepsis ***(Huang et.al.2006).***

Serum interleukins IL1b,IL6,IL8, appears to play a major role in pregnancy, also reports showed increased level in labor ***(Kac et al .,2010).***

T Helper (Th1) cytokines e.g (Interferon IFN and Tumour Necrosis Factor TNF- α) have been demonstated to impair embryo development and trophoplastic growth, and they are involved in apoptosis of trophoplast cell and can also inhibit outgrowth while Th2 cytokines (IL4,10) are formed in the deciduas during normal pregnancy ***(Bowen. et al., 2002).***

There is association between silent infections and preterm labor, also elevations of cytokines were reported in some conditions , the bacterial products will activate macrophages to

secrete large amounts of mediators (TNF- α IL1,2,3,4,6,8,10) in intra uterine tissue and amniotic fluid which stimulate prostaglandin secretion, collagenase leading to ripening of the cervix ***(Makhseed et al ., 2003)***.

There is correlation between cytokines and preeclampsia , TNF- α, IL2,6,10 level signicantly high in preecamptic patient than in normotensive controls. Also the detected levels of these cytokines correlate with disease severity ***(Freeman et al.,2004) and (James et al ., 2010)***.

In spite of the importance of cytokines, there is few studies that have assessed longitudinal changes in circulating cytokines level during normal pregnancy and the effect of maternal factors (e.g age ,body mass index BMI prior preterm delivery) on the level of cytokines.