

Insulin resistance and serum levels of interleukin-17 and interleukin-18 in normal pregnancy.

[Jahromi AS¹](#), [Shojaei M²](#), [Ghobadifar MA³](#).

Abstract

We performed this study to evaluate the role of Interleukin-17 (IL-17) and Interleukin-18 (IL-18) in insulin resistance during normal pregnancy. This descriptive cross sectional study was carried out on 97 healthy pregnant women including 32, 25, and 40 individuals in the first, second, and third trimesters, respectively, and on 28 healthy non pregnant women between the autumn of 2012 and the spring of 2013. We analyzed the serum concentrations of IL-17 and IL-18 by using the enzyme linked immunosorbent assay (ELISA). Insulin resistance was measured by homeostasis model assessment of insulin resistance equation. No significant differences between the demographic data of the pregnant and non pregnant groups were observed. Insulin resistant in pregnant women was significantly higher than the controls ($p=0.006$). Serum IL-17 concentration was significantly different in non pregnant women and pregnant women in all gestational ages ($p<0.05$). Serum IL-18 level was significantly lower in subjects with first, second, and third trimesters of pregnancy in compared to non pregnant women ($p<0.05$). No significant correlations were found between serum IL-17 and IL-18 levels with insulin resistance ($r=0.08$, $p=0.34$ vs. $r=0.01$, $p=0.91$, respectively). Our data suggested that IL-17 and IL-18 do not appear to attribute greatly to pregnancy deduced insulin resistance during normal pregnancy.

KEYWORDS:

Insulin resistance; Interleukin-17; Interleukin-18; Pregnancy