The role of TNF-α, IL-1β and IL-10 gene polymorphisms in resistance to toxoplasmosis infection among aborted women in Sulaimania city.

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Key words

Polymorphisms, TNF-α, Cytokine, Ethidium Bromide, Agarose gel, IL-1β, SNPs

The Aim of the study

This study is achieved to investigate or observe the association between the polymorphisms of three mentioned interleukin and toxoplasmosis among aborted women in Sulaimania province.

Abstract

Toxoplasma gondii is one of an obligate intracellular parasite that causes toxoplasmosis. Cytokines have a role in its pathogenesis. The single nucleotide polymorphisms (SNPs) of each cytokines have been suggested to have role in etiologic. So the aim of the presented study to investigated the association between the SNPs of mentioned interleukins and toxoplasmosis in 50 toxoplasmosis –aborted women were admitted to maternity teaching hospital in Sulaimania governorate during the period Jan. 2017 – March 2017 to finish their pregnancy. SNPs were ascertained by PCR-SSP (Polymerase chain reaction-sequence specific priming) method.

In addition, 40 apparently healthy women (University staff and health staff) as control. Both Latex agglutination test and Enzyme linked immunosorbent assay for IgG and IgM observed that 34% of case were positive for IgG and IgM anti- *Toxoplasma* antibodies.

This study showed that the single nucleated polymorphisms (SNPs) of *TNF-α, IL-10* and *IL-1β* demonstrated no significant positive or negative association with toxoplasmosis in the samples of aborted women in Sulaimania province/ north of Iraq.