



Non-Invasive Diagnosis of Endometriosis based on the Evaluation of Serum TNF- α , IL-10 and TNF- α \ IL-10 Ratio

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Abstract:Endometriosis is a chronic gynecological disease manifested by the occurrence of ectopic foci of endometrial tissue in the pelvic cavity and/or ovary. Etiology of the disease is still not fully understood but there is a growing bulk of evidence that immunological abnormalities play a role in this disease. The aim of the present study was to evaluate the serum TNF- α , IL-10 and TNF- α \ IL-10 ratio as non-invasive diagnosis of endometriosis. This case-control study was conducted on 30 women with endometriosis and 30 normal women as control. Blood was collected from patients and controls, enzyme-linked immunosorbent assay was carried out for estimation the serum level of (TNF- α and IL-10) in patients and controls groups. The present findings showed that the median serum levels of TNF- α and IL-10 were significantly elevated in females patient as compared with healthy females ($P < 0.01$). On the other hand, the median ratio of TNF- α \ IL-10 was significantly higher in patients when compared to controls. The current study showed that both T-helper 1 (Th1) and T-helper 2 (Th2) cytokines (TNF- α and IL-10) underline the role of the immune processes in pathogenesis of endometriosis and can be used as a non-surgical diagnostic markers for disease.

Key words:Endometriosis, TNF- α , IL-10, Th1, Th2, Cytokines.

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