9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Oral Presentations

O-7

Vitamin C and E supplementation effects on secretory and molecular aspects of vascular endothelial growth factor derived from peritoneal fluids of patients with endometriosis

Ansariniya H[1, 2], Hadinedoushan H[2], Javaheri A[3], Zare F[2].
1. *Department of Immunology, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.*
2. *Reproductive Immunology Research Center, Shahid Sadoughi University of Medical Sciences, Yazd, Iran.*
3. *Department of Obstetrics and Gynecology, Faculty of Medicine, Shahid Sadughi University of Medical Sciences, Yazd, Iran.*

Email: hhadin@ssu.ac.ir

Background: Endometriosis is an extremely heterogeneous disease and affects about 10% of the female population during their reproductive years. Recent studies showed that endometriosis is an angiogenesis-dependent disease. Peritoneal macrophages are a well-characterised source of vascular endothelial growth factor (VEGF).
Objective: The aim of this study was to determine the *VEGF* gene expression and production in peritoneal macrophages of patients with endometriosis under the effects of vitamins C and E in comparison with control.
Materials and Methods: The lab trial study carried out on 50 patients undergoing laparoscopy and peritoneal fluid samples were collected from them. We compared the *VEGF* gene expression and production in peritoneal macrophages among groups by using real-time polymerase chain reaction and enzyme-linked immunosorbent assay methods, respectively.
Results: Our results showed that gene expressions influenced by vitamin C increased in different concentrations and incubation times, except for the incubation time after 48 h. In the case of vitamin E, this was evident with the exception of vitamin E 50 µM after 24 h and vitamin E 100 µM after 48 h.
Conclusion: Our findings indicated that vitamin C and E in different concentrations and incubation times altered *VEGF* gene expression in the peritoneal macrophages but they had not affected on *VEGF* productions.
Key words: *Endometriosis, Vascular endothelial growth factor, Vitamin C, Vitamin E.*

The original full text of this abstract has been published in Journal of Obstetrics and Gynaecology 2019; 39(8): 1137-1142. https://doi.org/10.1080/01443615.2019.1601167.
How to cite to this article: *Ansariniya H, Hadinedoushan H, Javaheri A, Zare F. Vitamin C and E supplementation effects on secretory and molecular aspects of vascular endothelial growth factor derived from peritoneal fluids of patients with endometriosis. Journal of Obstetrics and Gynaecology 2019; 39(8): 1137-1142.*