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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

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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.

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