

عنوان مقاله:

Curcumin improves growth factors expression of bovine cumulus-oocyte complexes cultured in peritoneal fluid of women with endometriosis

محل انتشار:

مجله طب تولید مثل ایران، دوره 16، شماره 12 (سال: 1397)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Hendy Hendarto - *Ph.D., Department of Obstetrics and Gynecology, Faculty of Medicine, Airlangga University/Dr Soetomo Hospital Surabaya, Indonesia*

Muhammad Yohanes Ardianta Widyanugraha - *M.D., Department of Obstetrics and Gynecology, Faculty of Medicine, Airlangga University/Dr Soetomo Hospital Surabaya, Indonesia*

Widjiati Vidjiati - *Ph.D. Laboratory of Embriology, Faculty of Veterinary Medicine, Airlangga University, Surabaya, Indonesia*

خلاصه مقاله:

Background: Peritoneal fluid (PF) from infertile women with endometriosis contains inflammatory mediators that may interfere with folliculogenesis. **Objective:** The aim was to evaluate the effects of curcumin on growth factors expression by evaluating Growth Differentiation Factor-9 (GDF-9), Kit Ligand (KitL), and Tumor Necrosis Factor α (TNF α) expressions in bovine cumulus-oocyte complexes (COCs) cultured with PF from infertile women with endometriosis. **Materials and Methods:** In this experimental study, 21 infertile women (aged between 20 and 40 years) who referred to Dr Soetomo Hospital from January to July 2015 were enrolled. COCs were aspirated from antral follicles of bovine ovaries. PF was collected from infertile women with endometriosis undergoing laparoscopy for infertility evaluation. Curcumin, a strong anti-inflammatory turmeric, was added in Tissue Culture Medium 199 (TCM199) and PF for culture medium. Bovine COCs were cultured into three groups of the medium: 1. TCM199, 2. TCM199 + PF, and 3. TCM199 + PF + curcumin. GDF-9, KitL, and TNF α expressions were examined using immunohistochemistry technique. **Results:** GDF-9 expression of bovine COCs cultured in PF with curcumin addition (2.67 ± 0.98) was found to increase compared to those cultured without curcumin (0.50 ± 0.67) ($p \leq 0.001$). It was similar to KitL expression of bovine COCs cultured with curcumin (2.67 ± 1.23), which increased compared to those without curcumin (0.33 ± 0.49) ($p \leq 0.001$). A significant difference in TNF α expression was noted between groups with or without curcumin ($p \leq 0.001$). **Conclusion:** In the culture of PF from infertile women with endometriosis, curcumin addition improves the growth factors expression of bovine COCs. The increase of GDF-9 and KitL expressions will improve folliculogenesis.

کلمات کلیدی:

Curcumin, Bovine, GDF9, Kit Ligand, TNF α , Endometriosis

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/948111>



