KEY WORDS

- ✓ PCOS
- ✓ Insuline Resistance
- ✓ Adipokine
- ✓ CTRP3
- ✓ Visfatin

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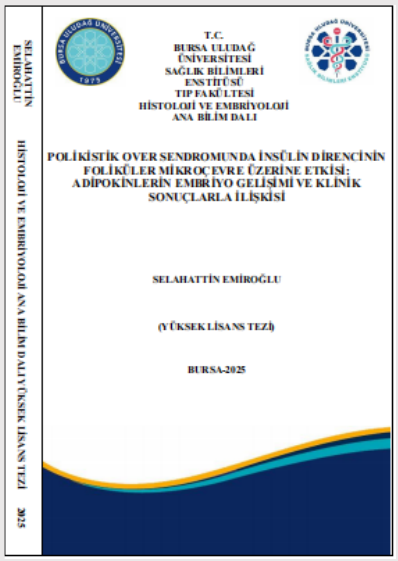

THE EFFECT OF INSULINE RESİSTANCE ON THE FOLICULAR MICROENVIROMENT IN POLYCYSTIC OVARIAN SYDROME : THE RELATIONSHIP OF ADIPOKINES WITH EMBRYO DEVELOPMENT AND CLINICAL OUTCOMES

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GRADUATION DATE: 22.07.2025

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THESIS ABSTRACT

In this thesis study, the relationship between insulin resistance (IR) and adipokine imbalance and increased apoptosis in the follicular microenvironment in women with PCOS was evaluated. The effects of IR on oocyte quality, hormonal balance, and fertility were investigated. In the study, the levels of adipokines (adiponectin, leptin, visfatin, CTRP3) and molecular markers such as IGF-1, IL-6, FSHR, LHR, and Caspase-3 were analyzed using the ELISA technique in serum, follicular fluid, and cumulus cells. The study investigated whether the changes associated with hyperinsulinemia in the PCOS+IR group were related to embryo development and clinical outcomes. The data obtained from the analyses were recorded and statistically evaluated.

APPLICATION AREAS OF THE THESIS RESULTS

According to our findings, significant differences in adipokine levels were detected in follicular fluid, serum, and cumulus cells in the PCOS+IR and PCOS-IR groups compared to the control group. Additionally, it has been scientifically demonstrated that increased apoptotic activation negatively affects embryological parameters and clinical outcomes. Based on these data, the importance of considering the presence of IR in personalized treatment approaches is emphasized. It is thought that controlling IR may improve fertility outcomes in women with PCOS.

ACADEMIC ACTIVITIES

1. 1. Emiroglu, S., Yesilleme, H., Berber, M., Cakır, C., Uncu, G., (2024). Decoding Total Fertilization Failure in Intracytoplasmic Sperm Injection Cycles: A Comparative Analysis of Sperm and Oocyte Parameters. Reproductive BioMedicine Online. Advance online publication.
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2. Emiroglu, S., Aslan, K. (2024). Factors Influencing the Decision-Making for Transfer Day in Fresh Embryo Transfers: A Comparative Analysis of Cleavage and Blastocyst Stages. Congress of the Federation of Women's Health Associations, Antalya, Turkiye