



#### **KEY WORDS**

- ✓ POI
- ✓ VCD
- ✓ PRP
- ✓ KOH
- ✓ PTEN/pAKT

# CONTACT

E-MAIL: gkuspinar@uludag.edu.tr

## THESIS SUPERVISOR

TELEPHONE: 05325649907

E-MAIL: berrin@uludag.edu.tr



The Effect of Intraovarian Platelet-Rich Plasma Injection on the Development of Ovarian Follicles in the Rat In Vivo Model of Premature Ovarian Failure

# Göktan KUŞPINAR

0000-0002-0338-8368 BURSA ULUDAG UNIVERSITY GRADUATE SCHOOL OF HEALTH SCEINCES HISTOLOGY AND EMBRYOLOGY DEPARTMENT PhD PROGRAM

#### **GRADUATION DATE:**

#### SUPERVISOR

PROF.DR. Berrin AVCI 0000-0001-8135-5468 BURSA ULUDAG UNIVERSITY GRADUATE SCHOOL OF HEALTH SCIENCES HISTOLOGY AND EMBRYOLOGY DEPARTMENT BURSA – TÜRKİYE



## THESIS ABSTRACT

This study aims to evaluate the efficacy of intraovarian platelet-rich plasma (PRP) administration on follicular development and clinical outcome in premature ovarian failure (POI) before the controlled ovarian hyperstimulation (COH) protocol.

In POI group, it was determined that there were fewer primordial and primary follicles, more atretic follicles, and lower PTEN concentrations with higher pAKT concentrations. In comparison to POI animals, an increase in the number of primary follicles, an increase in PTEN concentration, and a decrease in pAKT concentration were detected after intraovarian PRP or Saline injection. After intraovarian PRP and Saline injection, it was revealed that the subjects' follicle counts, PTEN and pAKT concentrations were comparable with each other. Due to the small sample size of live birth in mating protocol, it was not possible to determine the number of offspring per live birth.

## **APPLICATION AREAS OF THE THESIS RESULTS**

The results of the our study demonstrated that intraovarian plateletrich plasma treatment prior to the controlled ovarian hyperstimulation protocol had no effect on follicular development or live birth in the premature ovarian failure model.

#### ACADEMIC ACTIVITIES

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