



KEY WORDS

- ✓ PCOS
- ✓ Phoenixin-14
- ✓ ELISA
- ✓ Immunohistochemistry
- ✓ Rat

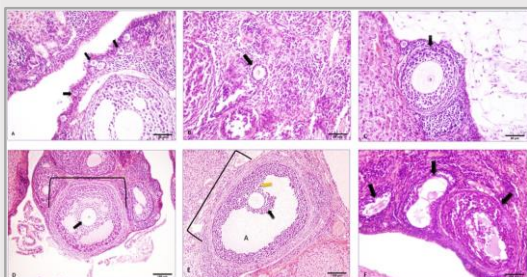
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Effects of Phoenixin-14 Peptide on Ovarian Morphology in the Dehydroepiandrosterone-Induced Rat Polycystic Ovary Syndrome Model

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THESIS ABSTRACT

Polycystic Ovary Syndrome (PCOS) is one of the heterogeneous metabolic disorders that affects the reproductive and endocrine systems of women of reproductive age. Phoenixin (PNX) is a neuropeptide produced in the hypothalamus and involved in regulating reproduction by acting directly on the pituitary gonadotropes. In our study, we aimed to demonstrate the healing effect of Phoenixin-14 peptide on ovarian tissue against possible PCOS-induced fertility changes in the dehydroepiandrosterone (DHEA)-induced polycystic ovary syndrome (PCOS) rat model. As a result, the histopathological changes occurring in the ovarian tissue in the DHEA-induced PCOS rat model could be improved by the therapeutic effect of the PNX-14 peptide. We think that in PCOS-induced abnormal folliculogenesis and anovulation, PNX-14 peptide may be a potential target that can be used for PCOS treatment in the future.

APPLICATION AREAS OF THE THESIS RESULTS

Our study is the first to examine the therapeutic effects of PNX-14 neuropeptide by testing different doses in an in vivo PCOS animal model. We think that further studies on neuropeptides may lead to advances in the search for new drug targets in the ovary and help increase the effectiveness of fertility treatment.

ACADEMIC ACTIVITIES

Cakir, C., Kuspınar, G., Kurt, G., Berber, M., Aslan, K., Kasapoglu, I., Uncu, G., & Avci, B. (2023). Comparison of semen parameters in the same patients before and after diagnosis of COVID-19. *Journal of medical virology*, 95(9), e29094. <https://doi.org/10.1002/jmv.29094>

Berber, M., Topal, G., Yurtseven Gok, D., Eyigor, Ö. (2023). Investigation of the Effect of Glutamate Agonist Kainic Acid on Activating Melanin Concentrating Hormone Neurons. 21. National Neuroscience Congress, pg.211. Bolu, TÜRKİYE.

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THIZ-2023-1532- Bursa Uludag University BAP

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