



## **KEY WORDS**

- ✓ Cystic endometrial hyperplasia
- ✓ Canine
- ✓ Pyometra
- ✓ Prostaglandin synthesis
- ✓ Steroid hormone receptors

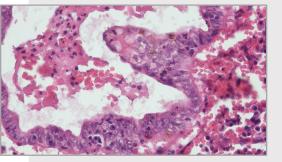
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# IS THE CYSTIC ENDOMETRIAL HYPERPLASIA AN ENDOMETRIAL CANCER FOR DOG?

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#### THESIS ABSTRACT

Cystic endometrial hyperplasia (CEH), is an important uterine pathology of non-castrated female dogs. The substantial changes resulting in CEH are widely accepted as the association of estrogen/progesterone imbalance on endometrium during estrus cycles in bitches. On the other hand, alterations in steroid hormone concentrations during the estrus cycle could influence uterine immune surveillance in bitches. The control of this process is achieved by prostaglandins. Because irreversible tissue differentiation is accepted, they act as wounds that fail to heal. In light of the detailed information on the relationship between malignancy and prostaglandin synthesis in humans, the possible transcription pattern of genes encoding prostaglandin synthesis in cystic endometrial hyperplasia has been studied.

Endometrial hyperplasia is a precursor lesion for endometrial carcinoma in women. Although cystic endometrial hyperplasia is widely not accepted as a malignancy of bitches a case of adenocarcinoma with cystic endometrial hyperplasia-pyometra complex in a dog and a cat was reported. Owing to the information about the diagnosis of cystic endometrial hyperplasia, pyometra, and uterine neoplasia in a bitch, the results of the hypothesis of this study could provide new information on canine uterine disorders. Based on the results of this study, the high levels of prostaglandin enzymes and low ER scores in CEH could be a preliminary step for the next stages of severe differentiation of endometrium.

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

Cystic endometrial hyperplasia in the field of molecular oncology

#### **ACADEMIC ACTIVITIES**

**Korlu Y**, Yavaş Ö, Aktar A, Bozkurt B, Özyiğit MÖ, Özalp GR: Expression profile of prostaglandin enzymes in cystic endometrial hyperplasia in dogs: The results of a hypothesis in clinical trial. Kafkas Univ Vet Fak Derg, 29 (1): 21-31, 2023. DOI:10.9775/kvfd.2022.28403