

## ABSTRAK

### **PENGARUH DIET PAKAN FOSFOR TINGGI TERHADAP HISTOPATOLOGIS UTERUS TIKUS WISTAR**

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Konsumsi fosfor tinggi menyebabkan hipokalsemia sehingga meningkatkan sekresi hormon paratiroid. Sekresi hormon paratiroid dihambat oleh estrogen sehingga tingginya sekresi hormon paratiroid akan diikuti oleh peningkatan sekresi estrogen. Sekresi estrogen yang tinggi akan direspon oleh reseptor estrogen di uterus. Penelitian ini bertujuan untuk mengkaji pengaruh diet pakan fosfor tinggi terhadap gambaran histopatologis uterus tikus wistar. Sebanyak 10 tikus wistar betina umur delapan minggu dengan *range* berat badan 130-160 gram diadaptasi pada minggu pertama. Tikus diberi pakan standar sebanyak 10 gram/hari/ekor dan minum aquabidestilata secara *ad libitum*. Pada minggu kedua, tikus dibagi menjadi dua kelompok yaitu tikus kelompok kontrol (DS+) yang tetap diberi pakan standar dan tikus perlakuan pakan fosfor tinggi (DT+) dengan masing-masing kelompok sebanyak 5 ekor. Tikus kelompok DS+ dan DT+ diberi pakan sebanyak 13 gram/hari/ekor selama tujuh minggu dan minum aquabidestilata secara *ad libitum*. Pada akhir penelitian, tikus dinekropsi dan uterus diletakkan dalam pot berisi formalin 10%. Uterus dibuat preparat histopatologis dan dilakukan analisis. Hasil preparat histopatologis uterus tikus kelompok DT+ terlihat epitel endometrium mengalami proliferasi. Dari hasil penelitian disimpulkan bahwa diet pakan fosfor tinggi pada tikus wistar menyebabkan proliferasi dan hiperplasia endometrium.

Kata kunci: Fosfor tinggi, estrogen, hormon paratiroid, uterus

## **ABSTRACT**

### **THE EFFECT OF HIGH PHOSPHOROUS DIET ON UTERUS HISTOPATHOLOGICAL FIGURES OF WISTAR RATS**

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High phosphorous consumption causes hypocalcemia that increases high secretion of parathyroid hormone. The secretion of parathyroid hormone inhibited by estrogen so that high secretion of parathyroid hormone followed by an increase in estrogen secretion. High estrogen secretion responded by estrogen receptors in the uterus. This research was aimed to determine the effect of a high phosphorous diet on the histopathological features of wistar rats uterus. Amount of 10 female wistar rats aged eight weeks with weight range of 130-160 grams were adapted in the first week. Rats were given standard feed for 10 grams/day/head and drink aquabidestilata ad libitum. The second week, the rats were divided into two groups, namely standard diet as control rats (DS+) and high phosphorous diet (DT+) with each group contain 5 rats. Rats in the DS+ and DT+ group were given feed 13 grams/day/head and drink aquabidestilata ad libitum for seven weeks. In the last of this research, rats were necropsied and the uterus were placed in the pot containing 10% formalin. Uterus were made for analyze histopathologically. The result of uterus histopathological figure was showed that epithelium of DT+ had proliferation. The conclusion of this research was high phosphorous diet in wistar rats causes proliferation and hyperplasia of the endometrium.

**Keywords:** High phosphorous, estrogen, parathyroid hormone, uterus