

INTISARI

PENGARUH SUPLEMENTASI *RALOXIFENE* TERHADAP HISTOPATOLOGIS GINJAL TIKUS WISTAR OVARIKТОMI

Afif Fakhriansyah

Suplementasi *raloxifene* dapat menurunkan risiko osteoporosis dan kanker kelenjar mammae, namun meningkatkan kadar kalsium dalam urin. Penelitian ini dilakukan untuk mengkaji pengaruh suplementasi *raloxifene* terhadap histopatologis ginjal tikus *Wistar* ovariektomi.

Lima belas tikus *Wistar* betina umur 8 minggu dibagi menjadi tiga kelompok, yaitu kelompok kontrol non ovariektomi (NK), kelompok ovariektomi (OVK), dan kelompok ovariektomi yang diberi suplementasi *raloxifene* 3 mg/hari/ekor (OVR). Masing-masing tikus diberi pakan standar dan aquabidestilata secara *ad libitum*. Tikus ditempatkan dalam kandang individu dengan suhu ruang berkisar 22-25⁰C. Tikus diadaptasikan terhadap pakan dan lingkungan selama 1 minggu. Satu minggu pasca operasi, tikus diberi perlakuan selama 8 minggu. Pada akhir perlakuan, tikus dieutanasi, ginjal kiri diambil, dan difiksasi dalam formalin 10% untuk pemeriksaan histopatologis ginjal dengan pengecatan HE.

Hasil pemeriksaan histopatologis ginjal tikus kontrol non ovariektomi dan tikus ovariektomi tidak menunjukkan perubahan, sedangkan pada tikus ovariektomi yang diberi suplementasi *raloxifene* terlihat ada protein dalam ruang Bowman's dan lumen tubulus kontortus proksimal dan tubulus kontortus distal, hipertropi glomerulus, atropi glomerulus, dan atropi tubulus kontortus proksimal dan distal. Berdasarkan hasil penelitian dapat disimpulkan bahwa tikus ovariektomi yang diberi suplementasi *raloxifene* menyebabkan *nephrotic syndrome*.

Kata Kunci: ovariektomi, histopatologis ginjal, *raloxifene*

ABSTRACT

THE EFFECT OF *RALOXIFENE* SUPPLEMENTATION ON HISTOPATHOLOGICAL PREVIEW OF KIDNEY IN OVARIECTOMIZED *WISTAR* RATS

Afif Fakhriansyah

Raloxifene supplementation decrease risk of osteoporosis and breast cancer, but it increase calcium excretion in urine. The objective of this research is to study the effect of *raloxifene* supplementation on histopathological preview of kidney in ovariectomized *Wistar* rats.

Fifteen female *Wistar* rats at 8 weeks of age, were divided into three group, control non-ovariectomized rats (NK), ovariectomized rats (OVK), and ovariectomized rats with *raloxifene* supplementation 3 mg/day/rat (OVR), and were fed standard diet, and were given aquabidestilata *ad libitum*. Each of rats were placed into individual cage in temperature 22-25⁰ C. Rats were adapted to feed and the environment for 1 week. One week after surgery, rats were treated for 8 weeks. After two months of treatment, rats were euthanasized, left kidney were taken, and were had fixation in 10 % formalin to examine histopathological preview of kidney with HE staining.

As result, non-ovariectomized/control and ovariectomized rats showed no change in kidney. In ovariectomized rats with *raloxifene* supplementation showed protein in the capsula Bowman's and lumen of kidney tubules, glomerular hypertrophy, glomerular atrophy, and tubular atrophy. It is concluded that *raloxifene* supplementation in ovariectomized rats causes *nephrotic syndrome*.

Keyword: ovariectomy, histopathology, kidney, *raloxifene*.