

INTISARI

PENGARUH PEMBERIAN SERBUK CANGKANG KERANG DARAH (*Anadara granosa*) TERHADAP GAMBARAN HISTOPATOLOGI TULANG TIKUS OVARIKТОMI

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Cangkang kerang darah memiliki kadar kalsium yang cukup tinggi. Penelitian ini dilakukan untuk mengetahui pengaruh pemberian serbuk cangkang kerang darah (*Anadara granosa*) terhadap gambaran histopatologis tulang tikus ovariektomi.

Enam belas ekor tikus putih *Sprague Dawley* betina umur 8 minggu dibagi menjadi 4 kelompok secara acak. Tikus kelompok KNON dioperasi semu (non ovariektomi), tikus kelompok KOV diovariektomi, tikus kelompok A diovariektomi dan diberi serbuk cangkang kerang darah 40 mg/hari, tikus kelompok B diovariektomi dan diberi serbuk cangkang kerang darah 80 mg/hari. Setelah 2 bulan diberi perlakuan, tikus dinekropsi untuk pengambilan tulang femur dan tulang tibia-fibula kiri. Tulang difiksasi dalam formalin 10% untuk pemeriksaan histopatologi dengan pengecatan Hematoxylin Eosin (HE).

Hasil penelitian menunjukkan gambaran histopatologi tulang tikus ovariektomi (KOV) terlihat penurunan jumlah tulang trabekula, pelebaran rongga sum-sum tulang dengan peningkatan jumlah sel adiposit, kelompok A menunjukkan kondisi trabekula seperti trabekula normal dan pelebaran rongga sum-sum tulang berkurang. Kelompok B menunjukkan gambaran yang lebih buruk dibandingkan kelompok A karena terjadi penurunan jumlah trabekula, pelebaran rongga sum-sum tulang dengan peningkatan jumlah sel adiposit. Dapat disimpulkan bahwa pemberian serbuk cangkang kerang darah sebesar 40 mg/hari selama 2 bulan pada tikus ovariektomi dapat meningkatkan jumlah tulang trabekula dan menurunkan pelebaran rongga sum-sum tulang. Pemberian serbuk cangkang kerang darah sebesar 40 mg/hari memberikan efek yang lebih baik pada tulang tikus yang diovariektomi dibandingkan dengan pemberian sebanyak 80 mg/hari.

Kata Kunci : Serbuk cangkang kerang darah, Ovariektomi, tulang,

ABSTRACT

EFFECT OF BLOOD COCKLE (*Anadara granosa*) POWDER ON BONE HISTOPATHOLOGIC OF OVARIETOMIZED RATS

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Blood cockle shell contain quite high amount of calcium. This research was conducted to study the effect of powder made from blood cockle (*Anadara granosa*) shell on histopatological figure of bone in ovarictomized rat.

Sixteen *Sprague Dawley* rats at 8 weeks of age were divided into groups of 4. KNON group was sham operated (non ovariectomy), group KOV was ovariectomized, group A was ovariectomized and given blood cockle shell powder 40 mg/day and group B was ovariectomized and given blood cockle shell powder 80 mg/day. Two months after ovariectomy, rats were killed and the femur, tibia, fibula were taken for histopatologic analysis. The bone were fixed with 10% of formaline for histopatological examination using Hematoxyline Eosin staining (HE).

The result shows that bone histopatologic figure of the ovariectomized group (KOV) was shown decreasing amount of trabecular bone, widening of bone marrow cavities with increasing amount of adipose cell, meanwhile group A was shown the trabekular bone similar to normal trabekula and widening of bone marrow cavity was decreased. Group B was shown worse condition compared to group A whereas there was decrease of trabekular bone and widening of bone marrow cavity with increasing amount of adipose cell. In conclusion, blood cockle shell powder 40 mg/day given to rats for two months increase the trabekular bone and decrease the widening of bone marrow cavities. Blood cockle shell powder at dosage of 40 mg/day was given better result compared to blood cockel shell powder at dosage 80 mg/day.

Key words : blood cockle shell powder, ovariectomy, bone