

ABSTRAK

PENGARUH PEMBERIAN REBUSAN DAUN KETAPANG KARET KEBO (*Ficus elastica*) TERHADAP GAMBARAN HISTOPATOLOGIK OTAK TIKUS MODEL *STROKE* ISKEMIK

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Stroke merupakan suatu sindrom yang diakibatkan oleh adanya gangguan aliran darah pada salah satu bagian otak sehingga menimbulkan gangguan fungsional otak berupa kelumpuhan saraf. *Stroke* tidak hanya berpotensi terjadi pada manusia, hewan juga memiliki risiko untuk terserang *stroke*, dilaporkan terdapat 3% kasus *stroke* yang terjadi pada hewan-hewan peliharaan seperti anjing dan kucing. Tujuan dari penelitian ini adalah untuk melihat gambaran histopatologi otak tikus Wistar model *stroke* iskemik dan diterapi dengan rebusan daun ketapang karet kebo (*Ficus elastica*).

Penelitian ini menggunakan 9 ekor tikus Wistar jantan berumur 2 bulan dibagi menjadi 3 kelompok yaitu kelompok kontrol negatif yang tidak diligasi arteri karotis komunis sinister, kontrol positif yang diligasi tanpa terapi rebusan, dan kelompok perlakuan yang diligasi serta diterapi rebusan. Tikus diadaptasi selama 7 hari setelah itu dilakukan pembedahan pada daerah leher untuk induksi *stroke* dengan meligasi arteri karotis komunis sinister. Pemberian rebusan diberikan dua kali sehari sebanyak 1 mL tiap ekor pada kelompok perlakuan selama 7 hari, eutanasia dilakukan pada hari kedelapan, organ otak tikus diambil selanjutnya dibuat preparat histopatologi dengan pewarnaan hematoksilin dan eosin (HE).

Hasil analisis menunjukkan perubahan histopatologi otak tikus kelompok kontrol positif berupa ekstrasvasi eritrosit ke dalam ruang Virchow Robin, infiltrasi limfosit, neutrofil, makrofag, sel glial, nekrosis neuron, dan edema neuron, sedangkan perubahan histopatologi otak tikus kelompok perlakuan berupa nekrosis neuron, infiltrasi sel glial, dan edema ruang Virchow-robin.

Kata kunci: *stroke* iskemik, tikus Wistar, daun ketapang karet kebo, ligasi arteri unilateral

ABSTRACT

THE EFFECT OF DECOCTION OF INDIAN RUBBER TREE (*Ficus elastica*) LEAVES ON BRAIN HISTOPATHOLOGY OF RATS BRAIN ISCHEMIC STROKE MODEL

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Stroke is a syndrome that is caused by a disruption of blood flow in one part of the brain causing functional brain disorders such as nerve paralysis. *Stroke* does not only occur in humans but also animals have a risk of *stroke*, it is reported that there are 3% of *stroke* cases that occur in pets such as dogs and cats. The purpose of this study was to look at the effect of decoction of indian rubber tree (*Ficus elastica*) leaves on brain histopathology of rats brain ischemic *stroke* model,

This study used 2 months old 9 male Wistar rats and were divided into 3 groups, to the negative control group that was not ligated by the common carotid artery, positive control was ligated without decoction therapy, and the treatment group was ligated and treated with decoction. The rats were adapted for 7 days after surgery was performed on the neck area for *stroke* induction by ligating the common carotid artery. The administration of decoction was given twice a day as much as 1 ml per tail in the treatment group for 7 days, euthanasia was carried out on the eighth day, rat brain organs were taken and then made histopathological preparations with staining of hematoxylin and eosin (HE).

The analysis showed histopathological changes in the rats brain of the positive control group in the form of extravasation of erythrocytes into the Virchow Robin space, lymphocyte infiltration, neutrophils, macrophages, glial cells, neuronal necrosis, and neuronal edema, while the histopathological changes in the rat brain treated group neuronal necrosis, glial cells infiltration, and edema of Virchow-robin space.

Key words: ischemic *stroke*, Wistar rats, indian rubber tree leaves, unilateral artery ligation