ABSTRACT

THE EFFECT OF ADMINISTRATION EXTRACTED DJENGKOL SEED (*Pithecollobium lobatum*) ETANOL 96%TO HISTOPATOLOGY RENAL TISSUE AND UREUM CREATININE LEVEL INCREASES OF MALE WHITE RAT (*Rattus norvegicus)* OF *Sprague dawley* STRAIN

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Background: Acute renal failure is quite common and can be caused by jengkol poisoning or djengkolism. Jengkol contains jengkolat acid which can be crystallized in the acid environment and soluble in water, therefore it is nephrotoxic. This study is to determine the effect of giving extract djengkol seed (*Pithecollobium lobatum*) 96% etanol to overview the histopatological kidney tissue, ureum and creatinine level increases and the relationship between the histopatological kidney tissue with increased levels of ureum and creatinine of white rat (*Rattus norvegicus*) of *Sprague dawley* strain.
Method: This study is an Experimental Analytical Methods with Post Test Only Control Group Design. Samples were 20 male white rat (*Rattus norvegicus*) from *Sprague dawley* strain with 200-250 grams body weight, 3-4 months and they were divided into 4 groups.
Result: The result showed that Kruskal-Wallis test, the value of $p<0,05$ which indicated there are differences in kidney tissue damage against increasing extract djengkol seed doses. The result showed that one-way ANOVA test, the value of $p<0,05$ for increased levels of urea and creatinine and there are differences between kidney tissue damage with increased of ureum and creatinine levels.
Conclusion: Increased of extract djengkol seed doses can cause kidney tissue damage and increased average of ureum levels above normal and average of creatinine levels were still within normal limits in all treatment groups.

Keywords: Creatinine, Djengkol, Kidney, Ureum

ABSTRAK

PENGARUH PEMBERIAN EKSTRAK ETANOL 96% BIJI JENGKOL (*Pithecollobium lobatum*) TERHADAP GAMBARAN HISTOPATOLOGI JARINGAN GINJAL SERTA PENINGKATAN KADAR UREUM KREATININ TIKUS PUTIH *(Rattus norvegicus)* JANTAN GALUR *Sprague dawley*

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Latar Belakang: Gagal ginjal akut cukup sering terjadi dan dapat disebabkan oleh keracunan jengkol atau djengkolism. Jengkol memiliki kandungan asam jengkolat yang dapat mengkristal dalam suasana asam dan sukar larut dalam air sehingga bersifat nefrotoksik. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian ekstrak etanol 96% biji jengkol (*Pithecollobium lobatum*) terhadap gambaran histopatologi jaringan ginjal, peningkatan kadar ureum dan kreatinin, serta hubungan antara kerusakan gambaran histopatologi jaringan ginjal dengan peningkatan kadar ureum dan kreatinin.
Metode: Penelitian ini merupakan penelitian analitik eksperimental dengan metode Post Test Only Control Group Design. Menggunakan 20 ekor tikus putih (*Rattus norvegicus*) jantan galur Sprague Dawley dengan berat badan 200−250 gram, berumur 3−4 bulan yang dibagi menjadi 4 kelompok untuk digunakan sebagai penelitian.
Hasil: Berdasarkan hasil uji Kruskal-Wallis, diperoleh nilai $p<0,05$ yang menunjukkan terdapat perbedaan kerusakan jaringan ginjal terhadap peningkatan dosis ekstrak biji engkol. Hasil uji one way ANOVA diperoleh nilai $p<0,05$ terhadap peningkatan kadar ureum dan kreatinin serta didapatkannya perbedaan kerusakan jaringan ginjal dengan peningkatan kadar ureum kreatinin.
Simpulan: Peningkatan dosis ekstrak etanol 96% biji jengkol dapat menyebabkan kerusakan jaringan ginjal serta peningkatan rerata kadar ureum diatas normal dan peningkatan rerata kadar kreatinin yang masih dalam batas normal pada seluruh kelompok perlakuan

Kata Kunci: Ginjal, Jengkol, Kreatinin, Ureum