

**EFEK PEMBERIAN EKSTRAK ETANOL SELEDRI (*Apium graveolens* L.)
TERHADAP KADAR PROTEIN URIN TIKUS PUTIH (*Sprague dawley*)
MODEL *CHRONIC KIDNEY DISEASE***

ABSTRAK

Chronic Kidney Disease(CKD) adalah kerusakan pada ginjal yang menyebabkan ginjal tidak dapat membuang racun dan produk sisa dari darah, dengan ditandai adanya protein dalam urin serta penurunan laju filtrasi glomerulus yang berlangsung selama lebih dari 3 bulan. Tujuan penelitian ini untuk mengetahui efek pemberian seledri (*Apium graveolens* L.) dalam mencegah peningkatan kadar protein urin tikus putih model CKD. Metode penelitian ini adalah eksperimental dengan *post test only with control group design*. Sebanyak 25 ekor tikus putih jantan, *Sprague dawley*, usia 2-3 bulan digunakan dalam penelitian ini, dan dibagi menjadi 5 kelompok. Kelompok A sebagai kontrol sehat, kelompok B sebagai kontrol sakit, kelompok C, D, dan E adalah kelompok perlakuan dengan diberi ekstrak etanol seledri dosis 250 mg/kgBB, 500 mg/kgBB, dan 1000 mg/kgBB. Pemberian ekstrak seledri dilakukan 14 hari sebelum dan 14 hari sesudah pembuatan model CKD. Sampel urin diambil pada hari ke-15 pasca operasi untuk diperiksa kadar protein urin. Analisis data menggunakan *One-way ANOVA* ($p < 0,05$) dilanjutkan *post hoc* LSD. Hasil penelitian ini di dapatkan rerata kadar protein urin kelompok A=1,162±0,348; B=1,744±0,449; C=1,612±0,686; D=0,890±0,191; E=1,392±0,277. Hasil uji *One Way ANOVA* rerata kadar protein urin menunjukkan nilai yang signifikan $p=0,033$ ($p < 0,05$). Uji *post hoc* LSD rerata kadar protein urin menunjukkan hasil perbedaan rerata yang signifikan antara kelompok A dengan kelompok B, kelompok B dengan D dan kelompok C dengan D ($p < 0,05$). Kesimpulan pada penelitian ini menunjukkan pemberian ekstrak etanol seledri (*Apium graveolens* L.) dosis 500 mg/kgBB dapat mencegah peningkatan kadar protein urin tikus model CKD.

Kata kunci: *Apium graveolens* L., *Chronic Kidney Disease*, Protein Urin, Seledri.

THE EFFECT OF ETHANOL EXTRACT OF (*Apium graveolens* L.) TO URINE PROTEIN LEVEL ON CHRONIC KIDNEY DISEASE RAT MODELS (*Sprague dawley*)

ABSTRACT

*Chronic Kidney Disease (CKD) is a damage to the kidneys which causes the kidneys to be unable to remove toxins and waste products from the blood, marked with the presence of protein in the urine and a decrease in glomerular filtration rate that lasts for more than 3 months. The aim of this research was to analyze the effect of celery (*Apium graveolens* L.) ethanol extract in preventing the increase of urine protein level in CKD rats model. The study used an experimental study with post test only control group design. Twenty five rats male (2-3 months old) were divided into 5 groups. Group A as healthy control, group B as nephrectomy group, group C (250 mg/kgBW of celery extract), group D (500 mg/kgBW of celery extract), and group E (1000 mg/kgBW of celery extract). Giving of celery extract was carried out 14 days before and 14 days after making the CKD model. A urine sample was taken on the 15th day postoperatively to check urine protein levels. Data were analyzed using One-way ANOVA ($p < 0.05$) followed by post hoc LSD. This study shows mean of urine protein level in group A = $1,162 \pm 0,348$; B = $1,744 \pm 0,449$; C = $1,612 \pm 0,686$; D = $0,890 \pm 0,191$; E = $1,392 \pm 0,277$. One Way ANOVA test showed that there was significantly differences of urine protein level between ($p < 0.05$). The post hoc LSD test on urine protein level showed significant differences between group A with B and between group B with D and between group C with D ($p < 0.05$). The administration of ethanol extract of celery (*Apium graveolens* L.) doses 500 mg/kgBB can prevent the increase urine protein levels in CKD.*

Keywords: *Apium graveolens* L., Celery, Chronic Kidney Disease, Urine Protein.