

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

ABSTRAK

Latar Belakang: Gagal Ginjal Kronik merupakan kerusakan ginjal dan/atau penurunan laju filtrasi glomerulus (LFG) berakibat pada peningkatan kadar kreatinin. Ekstrak etanol seledri (*Apium graveolens* L.) berfungsi sebagai antioksidan dan antiinflamasi yang berpotensi mencegah kerusakan pada ginjal.

Tujuan: Penelitian ini bertujuan untuk mengetahui efek pemberian seledri (*Apium graveolens* L.) dalam mencegah peningkatan kadar kreatinin tikus putih (*Sprague dawley*) model CKD.

Desain Penelitian: Metode penelitian adalah eksperimental dengan *post test only with control group design*. Dua puluh lima ekor tikus jantan (2-3 bulan) dibagi dalam 5 kelompok. Kelompok A (larutan aquades) sebagai kontrol sehat, kelompok B (larutan aquades) sebagai kontrol sakit, kelompok C (250 mg/kgBB), kelompok D (500 mg/kgBB), dan kelompok E (1000 mg/kgBB). Pada hari ke 15 setelah pemberian ekstrak, kelompok B, C, D, E dibedah dan dibuat model 5/6 nefrektomi subtotal. Pemberian ekstrak dilanjutkan sampai hari ke 30.

Hasil: Rerata kadar kreatinin serum kelompok A=1,32±0,06; B=1,46±0,08; C=1,30±0,06; D=1,38±0,04; E=1,37±0,05. Hasil uji *One Way ANOVA* rerata kadar kreatinin serum menunjukkan nilai yang signifikan ($p<0,05$). Uji *post hoc* LSD rerata kadar kreatinin serum menunjukkan hasil perbedaan rerata yang signifikan antara kelompok A dengan kelompok B, kelompok B dengan C dan kelompok B dengan E ($p<0,05$).

Kesimpulan: Pemberian ekstrak etanol seledri (*Apium graveolens* L.) dapat mencegah peningkatan kadar kreatinin serum tikus model CKD, dengan dosis 250 mg/kgBB sebagai dosis efektif.

Kata kunci: *Apium graveolens* L., Gagal Ginjal Kronik, Kreatinin, Nefrektomi subtotal, Seledri

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

ABSTRACT

Background: Chronic Kidney Disease (CKD) is kidney damage and /or a decrease in glomerular filtration rate (GFR) which results in increased creatinine levels. Ethanol extract of celery (*Apium graveolens* L.) functions were antioxidant and anti-inflammatory which has the potential effect to prevent kidney damage.

Objective: The aim of this research was to analyze the effect of celery (*Apium graveolens* L.) ethanol extract in preventing the increase of creatinine serum level in CKD rats model (*Sprague dawley*).

Design: This was 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 (aquadest) as healthy control, group B (aquadest) 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). On the 15th day after giving the extract and CMC, group B, C, D, and E were dissected and made 5/6 subtotal nephrectomy. Then the extract and CMC was continue given until 30th day.

Results: The mean of creatinine level in group A=1.32±0.06; B=1.46±0.08; C=1.30±0.06; D=1.38±0.04; E=1.37±0.05. One Way ANOVA test showed that there was significant differences of creatinine serum level between (p <0.05). The post hoc LSD test on creatinine serum level showed significant differences between group A with B and between group B with C and between group B with E (p <0.05).

Conclusion: The administration of ethanol extract of celery (*Apium graveolens* L.) can prevent the increase creatinine serum levels in CKD rats model with effective doses 250 mg/kgBB.

Keywords: *Apium graveolens* L., Celery, Chronic Kidney Disease, Creatinine, Subtotal nephrectomy