

**EFEKTIVITAS EKSTRAK SELEDRI (*Apium graveolens L.*)
TERHADAP KADAR MALONDIALDEHID (MDA) TIKUS PUTIH
MODEL 5/6 SUBTOTAL NEFREKTOMI**

ABSTRAK

Chronic Kidney Disease (CKD) merupakan kondisi kerusakan ginjal yang progresif yang ditandai dengan penurunan laju filtrasi glomerulus (LFG) sebesar <60mL/menit. Seledri (*Apium graveolens L.*) merupakan tanaman yang memiliki efek antioksidan dan mampu mencegah progresivitas CKD. Penelitian ini bertujuan untuk mengetahui efek ekstrak seledri dalam mencegah peningkatan kadar malondialdehid (MDA) pada tikus putih model 5/6 subtotal nefrektomi (SN). Penelitian ini merupakan penelitian eksperimental dengan *post test only with control group design*. Sebanyak 25 ekor tikus putih dibagi dalam lima kelompok. Kelompok 1: kontrol sehat atau *sham operation* (SO, n=5), kelompok 2: kontrol sakit (SN, n=5), kelompok 3 (n=5), kelompok 4 (n=5), dan kelompok 5 (n=5) adalah kelompok sakit yang diberikan ekstrak etanol seledri sebesar 200, 250, dan 300 mg/kgBB selama 14 hari sebelum dan 21 hari sesudah operasi 5/6 SN. Hasil penelitian dianalisis dengan uji *Saphiro wilk* dilanjutkan dengan uji *Kruskall Wallis*, dan uji *Mann Whitney* dengan taraf kepercayaan 95%. Didapatkan kadar MDA tertinggi pada kelompok 2 yaitu 40,81 U/mL dan kadar MDA terendah pada kelompok 1 yaitu 16,75 U/mL. Terdapat perbedaan yang signifikan pada seluruh kelompok perlakuan dan antarkelompok perlakuan. Ekstrak etanol seledri mampu mencegah peningkatan kadar MDA pada tikus model 5/6 SN. Ekstrak etanol seledri dosis 250 mg/kgBB paling efektif dalam mencegah peningkatan kadar MDA pada tikus model 5/6 SN.

Kata Kunci: CKD, MDA, seledri, tikus putih

THE EFFECTIVENESS OF CELERY (*Apium graveolens L.*) ETHANOL EXTRACT IN MALONDIALDEHYDE (MDA) LEVELS IN 5/6 SUBTOTAL NEPHRECTOMY RAT MODEL

ABSTRACT

*Chronic Kidney Disease (CKD) is a progressive kidney damage caused by various etiologies which characterized by the decreased of glomerular filtration rate (GFR) of <60 mL/min. Celery (*Apium graveolens L.*) is a plant that has an antioxidant effect. It can prevent the progression of CKD. The aim of this study was to determine the effect of celery extract in preventing the increase of malondialdehyde (MDA) levels in 5/6 subtotal nephrectomy (SN) white rats model. This research was an experimental study with post-test only with control group design. Twenty five white rats were divided into five groups. Group 1: healthy control or sham operation (SO, n=5), group 2: sick control (SN, n=5), group 3 (n=5), group 4 (n=5), and group 5 (n=5) was the sick group who was given celery ethanol extract of 200, 250, and 300 mg/kgBW for 14 days before and 21 days after surgery 5/6 SN. The results were analyzed using the Saphiro wilk test followed by the Kruskal-Wallis test, and the Mann-Whitney test with 95% confidence level. The highest MDA level showed in group 2 which is 40,81 U/mL and the lowest MDA level showed in group 1 which is 16,75 U/mL. There were significant differences in all and between treatment groups. Celery ethanol extract can prevent the increase of MDA levels in 5/6 SN model. The ethanol extract of celery at a dose of 250 mg/kgBW is the most effective in preventing the increase of MDA levels in 5/6 SN model.*

Keywords: CKD, Celery, MDA, Rat