

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

ABSTRAK

Chronic Kidney Disease (CKD) merupakan suatu gangguan progresif pada ginjal yang ditandai abnormalitas pada struktur dan fungsi ginjal selama lebih dari 3 bulan. Prevalensi CKD terus meningkat baik di dunia maupun Indonesia. Seledri (*Apium graveolens L.*) merupakan tanaman yang mempunyai efek antioksidan dan dapat menghambat progresivitas CKD. Penelitian ini bertujuan mengetahui efek ekstrak seledri dalam mencegah penurunan kadar SOD pada tikus model 5/6 subtotal nefrektomi (SN). Penelitian ini merupakan penelitian eksperimental dengan *post test only with control group design*. Dua puluh ekor tikus putih dibagi dalam 5 kelompok. Kelompok 1: kontrol sehat (SO, n=4), kelompok 2: kontrol sakit (SN, n=4), kelompok 3 (n=4), kelompok 4 (n=4), dan kelompok 5 (n=4) adalah kelompok sakit dan diberikan ekstrak etanol seledri 200, 250, dan 300 mg/kgBB 14 hari sebelum dan 21 hari sesudah operasi 5/6 SN. Didapatkan Kadar SOD pada kelompok 1,2,3,4 dan 5 masing-masing adalah 22,34±0,41; 19,31±2,03; 22,01±1,21; 22,90±0,75; dan 23,92±1,50 mg/dL. Hasil uji one way-ANOVA menunjukkan perbedaan bermakna antar kelompok ($p<0,05$). Berdasarkan uji post hoc LSD, terdapat perbedaan bermakna rerata kadar SOD kelompok 2 dengan kelompok 3, 4, dan 5 dengan $p<0,05$. Ekstrak etanol seledri dapat mencegah penurunan kadar SOD pada tikus model 5/6 SN. Ekstrak etanol seledri dosis 250 mg/kgBB paling efektif mencegah penurunan kadar SOD tikus model 5/6 SN.

Kata kunci: sele *Apium graveolens L.*, Seledri, SOD

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

ABSTRACT

Chronic Kidney Disease (CKD) is a progressive disorder in the kidneys characterized by abnormalities in the structure and function of the kidneys more than 3 months. Prevalence of CKD continues to increase in the world especially in Indonesia. Celery has antioxidant effect that can inhibit the progression of CKD. The purpose of this study was to find out the protective effect of *Apium graveolens* L leaf extract in preventing decreased SOD levels in mice model 5/6 subtotal nephrectomy (SN). Twenty Sprague Dawley rats were divided into 5 groups. Group 1: positive control (SO, n=4), group 2: negative control (SN, n=4), group 3 (n=4), group 4 (n=4), and group 5 (n=4) were the SN groups and were given ethanol extract of celery respectively 200, 250, and 300 mg/kg for 14 days before and 21 days after operation. The SOD levels in groups 1,2,3,4 and 5 were respectively 22.34±0.41; 19.31±2.03; 22.01±1.21; 22.90±0.75; dan 23.92±1.50 mg/dL. The One Way ANOVA test showed that there were significantly differences in SOD serum levels between groups (p<0.05). Post hoc LSD test showed that there were significantly difference in SOD serum levels between groups 2 and groups 1, 3, 4, and 5 (p<0.05). Celery ethanol extract at a dose of 250 mg/kg BW can prevent the decrease of SOD levels in 5/6 SN rats model.

Keywords: *Apium graveolens* L., celery, SOD