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# Efek antioksidan bekatul dibandingkan Vitamin E terhadap MDA jaringan jantung yang diinduksi CCl4 = The Effects of rice bran antioxidants compared to Vitamin E on MDA level in CCl4 induced cardiac tissue

Zackie Alfian Rizaldy, author

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Abstrak

ABSTRAK<br>
Stres oksidatif disebabkan ketidak seimbangan mekanisme pertahanan tubuh dengan radikal bebas. Radikal bebas dapat menginisiasi peroksidasi lipid yang berakibat kerusakan jaringan salah satunya pada jantung. Salah satu cara mengatasi hal ini dengan mengkonsumsi antioksidan eksogen dari makanan, yaitu bekatul. Bekatul mengandung tokoferol vitamin E . Oleh karena itu peneliti ingin mengetahui efek antioksidan bekatul varietas IPB3s dibandingkan vitamin E terhadap kadar malondialdehid MDA pada jantung tikus yang diinduksi karbon tetraklorida CCl4 . Penelitian ini menggunakan desain eksperimental dengan sampel 30 tikus jantan galur wistar. Sampel dibagi menjadi sepuluh kelompok dan masing-masing kelompok dilakukan pengukuran kadar MDA dengan metode Thiobarbituric Acid Reacting Substances TBARS . Hasil penelitian ini menunjukkan bahwa pemberian CCL4 tidak signifikan meningkatkan kadar MDA jantung dibandingkan kelompok kontrol. Pemberian bekatul IPB3s secara bermakna menurunkan kadar MDA jantung dibandingkan dengan pemberian CCl4. Tidak terdapat perbedaan kadar MDA bermakna antara pemberian bekatul dibandingkan dengan pemberian vitamin E. Berdasarkan hasil penelitian dapat disimpulkan bahwa bekatul dapat dijadikan sumber alternatif vitamin E.
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ABSTRACT<br>
Oxidative stress is caused by the imbalance of the body s defense mechanism with free radicals. Free radicals can initiate lipid peroxidation resulting in cardiac tissue damage. One way to overcome this by consuming exogenous antioxidants from food, such rice bran. Rice bran contains tocopherol vitamin E . The aim of this study was to know the antioxidant effect of rice bran varieties IPB3s compared to vitamin E to the levels of malondialdehid MDA in the cardiac tissue of rats induced carbon tetrachloride CCl4 . This study used an experimental design with a sample of 30 male rats of wistar strain. The samples were divided into ten groups and each group performed the measurement of MDA levels measured using Thiobarbituric Acid Reacting Substances TBARS assay. The results of this study showed that the administration of CCL4 did not significantly increase cardiac MDA levels compared to the control group. It was also revealed the administration of rice bran varieties of IPB3s significantly decreased MDA level of cardiac tissue compared with CCl4 group. There was no significant difference in MDA levels between rice bran and vitamin E intake. Based on the research results can be concluded that rice bran can be used as an alternative source of vitamin E.