Perubahan kadar senyawa karbonil pada hati dan plasma tikus yang di induksi CCL4 diikuti pemberian ekstrak air cengkeh = Alteration of carbonyl compounds level in rat s liver and plasm which induced by CCLl4 and followed by administration of water extract of cloves

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Abstrak

ABSTRAK
Pendahuluan: Radikal bebas menjadi masalah serius karena dapat menyebabkan berbagai penyakit lewat mekanisme perusakan DNA, protein, lipid, dan karbohidrat. Cengkeh Syzygium aromaticum dipercaya memiliki efek antioksidan yang kuat. Penelitian ini akan mencari tahu efek antioksidan ekstrak air cengkeh terhadap kerusakan hati dan plasma akibat CCl4 dan perbedaan akibat lama pemberian.Metode: Desain penelitian adalah eksperimental in vivo. Data didapat dengan mengukur konsentrasi senyawa karbonil pada hati dan plasma 24 tikus Wistar yang dibagi ke dalam 6 kelompok, yaitu Kontrol Normal tanpa perlakuan , Kontrol Positif CCl4 diikuti ?-tokoferol , Kontrol Negatif induksi CCl4 , Cengkeh 1 cengkeh selama 1 hari , CCl4 Cengkeh 1 CCl4 diikuti cengkeh selama 1 hari , serta CCl4 Cengkeh 3 CCl4 diikuti cengkeh selama 3 hari . Dosis cengkeh 200 mg/ kgBB.Hasil: Hasil uji hati didapat kadar karbonil Kontrol Negatif lebih rendah dibanding CCl4 Cengkeh 1 p=0.257 tetapi lebih tinggi dibanding CCl4 Cengkeh 3 p=0.91 . CCl4 Cengkeh 1 lebih tinggi dibanding Kontrol Normal p=0.005 dan CCl4 Cengkeh 3 p=0.008 . Hasil uji plasma didapat kadar karbonil Kontrol Negatif lebih rendah dibanding CCl4 Cengkeh 1 p=0,008 tetapi lebih tinggi dibanding CCl4 Cengkeh 3 p=0,085 .Kesimpulan:Cengkeh memiliki efek antioksidan yang mampu mengatasi kerusakan hati dan plasma akibat CCl4 dan waktu 3 hari merupakan waktu yang dibutuhkan untuk menunjukkan efek.
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ABSTRACT
Introduction Free radicals is a serious problem because it can cause various diseases through the mechanism of destruction of DNA, proteins, lipids, and carbohydrates. Cloves Syzygium aromaticum is believed to have strong antioxidant effect. The aim of this study was to find out the antioxidant effects of water extracts of cloves to damage the liver and plasm due to CCl4 and difference in duration of administration.Methode The study design was experimental research in vivo. Data obtained from measurement of carbonyl concentration in 24 Wistar rats liver and plasmwhich are divided into 6 groups Normal Control without treatment , Positive Control CCl4 followed by tocopherol , Negative Control induction CCl4 , Cloves 1 clove for 1 day , CCl4 Clove 1 CCl4 followed cloves for 1 day , and CCl4 Clove 3 CCl4 followed cloves for 3 days . Dose of cloves was 200 mg kgBB.Result The results of liver test obtained the carbonyl level in Negative Control is lower than CCl4 Cloves 1 p 0257 but higher than CCl4 Clove 3 p 0.91 .CCl4 Cloves 1 is higher than Normal Control p 0.005 and CCl4 Clove 3 p 0.008 . The test results obtained plasm carbonyl level in Negatif Control is lower than CCl4 Cloves 1 p 0.008 but higher than CCl4 Clove 3 p 0.085 .Conclusion Cloves have antioxidant effects that can overcome the liver and plasm damage caused by CCl4 and it considered that 3 days the time required to show an effect.