

PENURUNAN TOKSISITAS KADMIUM DENGAN KELATOR ALAMI PEGAGAN (CENTELLA ASIATICA) DITINJAU DARI KADAR MALONDIALDEHID (MDA) DAN SUPEROKSIDA DISMUTASE (SOD)

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Abstract	<p>Cadmium (Cd) is a heavy metal that is toxic to humans. Cadmium will bind to metalotionin in the liver to form Cd+MT bonds, which triggers the formation of free radicals and causes oxidative stress. Oxidative stress characterized by elevating of MDA and decreasing of antioxidant enzyme such as SOD. Gotu kola(Centella asiatica) contains active compounds medecassoside that can function to chelate Cd, decreasing MDA level caused by Cd-Mt bounded and generate SOD level. The aim of this study is to know the effect of Pegagan as natural chelator for Cd poisoning and as antioxidant. Twenty four rats were used in this research and divided into six groups with four replications. Group 1 (C1) as healthy. Group 2 (C2) was only given 14 mg/200 gBW of CdSO₄ for 35 days. Group 3, 4, 5 and 6 were given CdSO₄ 14 mg / 200gBB and gotu kola extract dose of 20 mg/200gBB, 40 mg/200gBB, 60 mg/200gBB, 80 mg / 200gBB, for 21 days. The parameters studied were blood MDA and SOD level. Measuring parameters were done on the 36th day after administration of Centella extract. Data were analyzed by Anova and followed by Duncan test. The results showed that Centella all doses can reduce MDA level and increase SOD level. A dose of 40mg / 200gBB Centella extract has been effective in reducing MDA level as well as increasing SOD level. It can be concluded that dose of 40mg/200gBB can use as a natural chelator of Cd and as antioxidant for Cd poisoning.</p>
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