THE POTENCY OF RED DRAGON FRUIT (Hylocereus polyrhizus) PEEL ETHANOLIC EXTRACT AS GASTROPROTECTOR IN MICE (Mus musculus) INDUCED BY ETHANOL

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ABSTRACT

This study was aimed to discover the effect of red dragon fruit (Hylocereus polyrizus) peel extract on gastric injury induced by ethanol 75% 5 ml/kg BW in mice (Mus musculus). Twenty-five BALB/C mice were randomly divided into five groups. C(+) was positive control mice were given CMC Na 0,5% for 7 days then fasted for 24 hours and continued with 75% ethanol 5 ml/kg BW administration orally on day 9. C(-) is negative control which mice were given CMC Na 0,5% for 7 days then fasted for 24 hours and continued with aquadest administration orally on day 9. T(1), T(2), and T(3) are treatment groups that were pretreated with red dragon fruit peel extract 250 mg/kg BW, 500 mg/kg BW, and 1000 mg/kg BW for 7 days, fasted for 24 hours, and continued with 75% ethanol 5 ml/kg BW administration orally on day 9. The treatment was conducted for 3 days of adaptation and 9 days of total treatments. At the end of the research, all mice were sacrificed at day 9, 3 hours after ethanol administration and gastric were collected. Gastric tissues were processed into histopathological preparation using Hematoxylin-Eosin staining. The result shows significant difference (p<0,05) between C(+) and C(-) groups prove that ethanol can cause gastric injury. Insignificant difference (p>0,05) found between C(-) and treatment groups which means that the red dragon fruit peel extract treatments have the potency to prevent gastric injury. The dosage differences did not affect significantly (p>0.05) between treatments.

Keywords: gastric injury, ethanol, antioxidant, red dragon fruit peel extract.