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Antigastritic Effect of Starch from Manihot utilissima on Male Wistar Rats Induced Aspirin

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Abstract : Aspirin is one of NSAIDs (non-steroid inflammatory drugs), can cause gastric ulcer as an side effect of prolonged consumption. The effort to prevent the increase of gastric HCl level can by treating with amylopectin was reported that can cover the gastric mucose. However, the effect of amylopectin in starch from Manihot utilissima which is believed as traditional treatment gastric ulcer have not been clear yet. This study was conducted to determine the effect of starch formed as syrup to HCl level and gastric histopatology. This experiment post test only control group design used 42 male wistar rats divided into 7 groups. All groups, except first group, were induced by 60 mg/100gBW/day aspirin for 3 days. The following day for 2 days each group was treated by starch syrup at dosed 0.45% w/v, 0.9% w/v, 1.8% w/v, 0% w/v, and sucralfate. Respectively, HCl level were measured by acidi-alkalimetri titration method, while the gastric histopathology were prepared by hematoxylin-eosin staining. The result shows that aspirin induction can increase the HCl level as 0,00767 N. Starch syrup at dose 1.8% w/v was effective to reduce HCl level and the grade of second gastric necrosis. It can be conclude that starch syrup is potention as a treatment to cure gastric ulcer caused by NSAIDs side effect.

Keywords : concentration of HCl stomach, gastric histopathology, gastritis, starch
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