

**THERAPEUTIC EFFECT OF *Spirulina platensis* EXTRACT ON
HISTOPATHOLOGICAL APPEARANCE OF ETHANOL INDUCED
LIVER INJURY IN RAT (*Rattus Norvegicus*)**

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ABSTRACT

The aim of this study is to prove the potential of *Spirulina platensis* extract in reducing the liver injury caused by ethanol in Rat (*Rattus Norvegicus*). Twenty male rats were divided into five groups containing four rats each. They were two control groups and three treatment groups, which was given 200, 400, and 800 mg/kg BW of *Spirulina platensis* extract orally. For the first seven days each group was given ethanol 50% 10 ml/kg BW except for control groups. On the 8th day, the treatment of ethanol was stopped and then continued with the giving of *Spirulina platensis* extract for the treatment groups and CMC Na 0.5% solution for control groups for the total of 14 days. On the 28th day, 24 hours after the last treatment, histopathological evaluation was done to score liver injury based on hepatocyte degeneration and necrosis using HE stain with 400x magnification. The scoring data was then analyzed using Kruskal Wallis and Mann-Whitney. The result showed 200 mg/kg BW dosage of *Spirulina* extract can reduce ethanol-induced liver injury in Rat (*Rattus norvegicus*) and gave significant difference ($p < 0.05$) among the treatment groups. In the other hand, *Spirulina* extract dose of 400 and 800 mg/kg BW showed negative result as the histopathological features showed many degeneration and necrosis in some areas.

Keywords : *Spirulina platensis*, ethanol, liver injury