PROTECTIVE EFFECT OF *Spirulina platensis* ON HISTOPATHOLOGICAL CHANGES OF RENAL CORTEX OF PHYSICAL-STRESSED RAT (*Rattus norvegicus)*

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ABSTRACT

This research aimed to determine the protective effect of *Spirulina platensis* on histopathological changes of renal cortex of physical-stressed rat (*Rattus norvegicus*). Twenty male rats were divided into five groups (C –, C +, T 1, T 2, T 3) and treated for 35 days. C – were administered 2 ml CMC-Na 0,5%, C + were treated excessive physical exercise (swimming) for one hour/day, T1 were administered 300 mg/kg bw *Spirulina platensis* extract + one hour of excessive physical exercise (swimming)/day, T2 were administered 600 mg/kg bw *Spirulina platensis* extract + one hour of excessive physical exercise (swimming)/day and T3 were administered 1200 mg/kg bw *Spirulina platensis* extract + one hour of excessive physical exercise (swimming)/day. The histopathological features of renal cortex were examined using Modified Klopfleisch Scoring method. The obtained data analyzed with Kruskal-Wallis test and Mann-Whitney test. The result showed that *Spirulina platensis* extract could protect histopathological changes of renal cortex of physical-stressed rat (*Rattus norvegicus).* The dose of 600 mg/kg bw *Spirulina platensis* extract could protect renal cortex of physical-stressed rat (*Rattus norvegicus).* The antioxidants of *Spirulina platensis* that scavenge the active radicals to suppress chain initiation and/or break the chain propagation reactions.

Keywords**:** *Spirulina platensis*, Physical-Stressed, Renal Cortex.