THE EFFECT OF *Mimosa pudica* ROOT EXTRACT TO HISTOPATHOLOGICAL REPRESENTATION OF *Rattus Norvegicus* CEREBRUM INDUCED WITH *Naja sputatrix* VENOM

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ABSTRACT

The aim of this study is to know the effect of *Mimosa pudica* root extract on histopathological appearance of *Rattus norvegicus* brain induced by *Naja sputatrix* venom. Thirty rats were divided into five groups containing six rats each. They were two control groups and three treatment groups, which was given 250, 500, and 1000 mg/kg BW of *Mimosa pudica root* extract orally. For the first seven days each group was adapted to the environment. On the 8th day, the treatment was started by injecting *Naja sputatrix* LD_{50} (0,13 μL/gram BW) IM in gluteus muscle and then continued with the giving of *Mimosa pudica* root extract orally for the treatment groups 5 minutes after the injection of venom. 6 hours after the last treatment, the rats were killed by cervical dislocation, injected with formalin 10% in the heart, and then necropsied to obtain the brain. Histopathological evaluation was done to score brain damage based on meningitis, perivascular cuffing, and necrotic cells using HE stain with 400x and 1000x magnification. The scoring data was then analyzed using Kruskal Wallis and Mann-Whitney. The result showed 1000 mg/kg BW dosage of *Mimosa pudica* root extract can reduce brain damage based on meningitis, perivascular cuffing, and necrotic cells in Rat (*Rattus norvegicus*) caused by *Naja sputatrix* venom and gave significant difference ($p < 0.05$) among the treatment groups.

Keywords : *Mimosa pudica*, *Naja sputatrix*, snake venom, brain damage