

EFFECT OF *Moringa oleifera* LEAF EXTRACT ON THE NUMBER OF MICROGLIAL CELLS IN THE MICE (*Mus musculus*) CEREBRUM EXPOSED BY METHYLMERCURY

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ABSTRACT

This research aimed to determine the effect of *Moringa oleifera* leaves extract in preventing mice (*Mus musculus*) cerebrum damage with counting on the number of microglial cells as the indicator of inflammatory. Twenty male mice were divided into five groups and has been administered intragastric gavage for 21 days: C- group (0.2 ml Na-CMC Solution), C+ group (0.4 mg/kg bw methylmercury), T1 group (200 mg/kg bw *Moringa oleifera* leaf extract + 0.4 mg/kg bw of methylmercury), T2 group (400 mg/kg bw *Moringa oleifera* leaf extract + 0.4 mg/kg bw methylmercury), and T3 group (800 mg/kg bw *Moringa oleifera* leaf extract + 0.4 mg/kg bw methylmercury). Statistical analysis showed there were significant difference on the number of microglial cells between groups ($p < 0.05$). Subsequently continued with Duncan Multiple Range Test (DMRT). Analysis result of DMRT showed that C+ group has significant difference among groups C-, T1, T2, T3 with control positive group (C+) has highest number of microglial cells. Group T3 showed significantly different among groups C+, T1, and T2 with treatment 3 (T3) group has lower number of microglial cells. The conclusion of this research is *Moringa oleifera* leaf extract can protect mice cerebrum from deleterious effect of methylmercury, and the best dose was 800 mg/kg bw.

Keywords: *Moringa oleifera*, Methylmercury, Cerebrum, Microglial.