

**THE EFFECT OF POLYPROPYLENE PLASTIC RESIDUE ON HEATED
PALM OIL AGAINST THE HISTOPATHOLOGICAL CHANGES OF
KIDNEY ON MALE RATS (*Rattus norvegicus*)**

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ABSTRACT

This research was conducted to observe the effect of polypropylene plastic residue on heated palm oil against the histopathological changes on rat's kidney. There were 18 male rats (*Rattus norvegicus*) that used as the examination animal and were divided into three groups and were given the mixture of heated palm oil and polypropylene plastic per oral with intubation needle. The treatment was done for five weeks. The treatment for P0 group was 84 g of palm oil, for P1 was 84 g of palm oil with 2.3 g of plastic, and for the P2 was 84 g of palm oil with 6.8 g of plastic. The histopathological changes of the kidney were observed using microscope with 400x magnification and the data was analysed using Kruskal-Wallis and continued with Mann Whitney U test. The result showed that there were significant differences between three groups of treatment ($P < 0.05$). There were effects of polypropylene plastic residue on heated palm oil against the histopathological changes of kidney in this research such as cast, epithelial sloughing and necrosis in the mild scale.

Keyword: *Kidney, palm oil, polypropylene plastic, Rattus norvegicus*