

**EFFECT OF BORAX ($\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$) TO THE HISTOPATOLOGICAL
CHANGE OF WHITE RATS *CEREBRUM* (*Rattus norvegicus*)**

Fernanda Elfan

ABSTRACT

The aim of this study is to know the effect of borax which may cause necrosis and cloudy swelling degeneration in white rats (*Rattus norvegicus*) cerebrum. This study is using 24 healthy male Wistar white rats (*Rattus norvegicus*), aged 1.5 months, and around 100 grams of body weight. Borax is being dissolved for each treatment by doses of 19 mg, 26 mg, and 37 mg, and provided for 24 white rats. Result shows that a borax dose of 26 mg/day for each rat is causing the most severe swollen degeneration (cloudy swelling), while borax doses of 19 mg/day and 37 mg/day had no impact on the severe swollen degeneration (cloudy swelling). Borax of 37 mg/day doses for each rat is showing a result of the most severe Pyramid cell necrosis on the histopathological change of white rats (*Rattus norvegicus*) cerebrum, while doses of 19 mg/day and 26 mg/day had no impact on severe Pyramid cell necrosis on the histopathological change of white rats (*Rattus norvegicus*) cerebrum. Based on the research which has been done then we can conclude that borax can cause the most severe swollen degeneration (cloudy and swelling) at the dose of 26 mg and the most severe Pyramid cell necrosis in white rats (*Rattus norvegicus*) cerebrum at the dose of 37 mg.

Key word: Borax , necrosis, swollen degeneration, *cerebrum*.