

**THE EFFECT OF GUAVA FRUIT (*Psidium Guajava L.*) EXTRACT ON
THE HISTOPATHOLOGY OF RATS (*Rattus novergicus*) LUNGS
EXPOSED TO CIGARETTE SMOKE**

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ABSTRACT

The purpose of this research is to prove the effect of guava fruit extract on the histopathology of rats lungs exposed to cigarette smoke. This experimental research using 25 rats with an average weight of 150-200 gram. The group of negative control (K-) was given CMC Na 0.5% 2 ml/head without exposed by cigarette smoke, group of P0 was exposed with cigarette smoke and given CMC Na 0.5% 2 ml/head, treatment groups P1, P2 and P3 treated with guava fruit extract on dose of 3.78 mg/200gBB, 7.56 mg/200gBB, 11.34 mg/200gBB and exposed to cigarette smoke. Exposure cigarette smoke had been given three pieces cigarette per group each day. The result showed that guava fruit extract has potential improved congestion and thickening of the alveolar septa lungs exposed to cigarette smoke in the highest dose 11.34 mg/200gBB. Based on statistical data analysis using *Kruskal Wallis test* showed significant different ($p=0.000$), further analysis using *Mann Whitney* test it showed there were different in each group. The conclusion of this research showed that guava fruit extract could improve the congestion and thickening of the alveolar septa lungs in rats exposed to cigarette smoke.

Keywords :guava fruit extract, congestion, thickening alveolar septa, cigarette smoke.