

## ABSTRACT

### THE EFFECT OF SOURSOP LEAF (*ANNONA MURICATA* L.) EXTRACT TO HISTOPATHOLOGY OF THE FEMALE RAT LUNG INDUCED BY 7,12 DIMETHYLBENZ[ $\alpha$ ]ANTHRACENE CARCINOGEN (DMBA)

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Cancer is the process of uncontrolled body cells proliferation. The cancer treatments such as surgery, radiotherapy and chemotherapy have side effects so that natural anticancer is needed. For example, soursop (*Annona muricata* L.) which contains antioxidant dan anticancer material.

The aim for this research is to determine the effect of soursop leaf extract to histopathology of female rat lung induced by DMBA. This study was an experimental design with 4 group of intervention. Each group contains 5 female *Sprague dawley* rats. Group I (negative control) given 1 ml/days of aquadest; group II (positive control) given 20 mg/kgBB of DMBA twice a week; group III (1<sup>st</sup> treatment) given 20 mg/kgBB of DMBA twice a week + 20 mg/kgBB/days of soursop extract; and group IV (2<sup>nd</sup> treatment) given 20 mg/kgBB of DMBA twice a week + 40 mg/kgBB/days of soursop extract. During the study, rats were fed with pellets. In this study, the statistical test is using *Kruskal Wallis* test ( $p < 0,05$ ) and *Post-Hoc Mann Whitney* test ( $p < 0,05$ ).

The results showed on first group were 3 normal of lung histopathology and 2 mild damage of lung; second group were 1 moderate damage and 4 severe damage of lung; third group were 2 mild damage, 2 moderate damage and 1 severe damage of lung; fourth group were 3 mild damage and 2 moderate damage of lung. In fourth group showed significant changes of lung histopathology compared to second group.

**Key word:** DMBA, lung histopathology, soursop.