

ABSTRACT

THE EFFECTS OF ETHANOL EXTRACT FROM MANGOSTEEN PEEL (*Garcinia mangostana* L.) ON *Sprague Dawley* STRAIN WHITE RAT'S (*Rattus norvegicus*) PANCREAS EXPOSED BY HANDPHONE ELECTROMAGNETIC WAVE

BY

ARISTA DEVY APRIANA

Handphone has the radiation of electromagnetic waves that are harmful to the human body, such as the endocrine system one of them is the pancreas.. Resolving its condition, the antioxidants contained in mangosteen peel are needed. This study aims to determine the effect of ethanol extract from mangosteen peel (*Garcinia mangostana* .L) in order to repair pancreas histopathological changes specifically langerhas islet cell on sprague dawley strain white male rats (*Rattus norvegicus*) given handphone electromagnetic exposure. This study uses 20 *Sprague dawley* strain white male rats with 200-300 gram body weight then the samples are divided into 5 groups which consist of Control Group 1 (K1) with no treatments are given in rats, Control 2 (K2) is given Nacl 0,9 % and mobile phone electromagnetic waves exposures. The Treatment group (P1), (P2), and (P3) are given ethanol extract from mangosteen peel with multilevel dosage of 50, 100, 200 mg / kgbw and exposure to mobile phone electromagnetic wave for 3 hours per day along for 28 days. Data were analyzed by using statistical test of Kruskal Wallis. K1 all normal sample; K2 There are 3 sample damage degrees 1, 1 normal sample; P1 There is 1 sample damage degree 1, 3 normal samples; P2 There is 1 sample damage degree 1, 3 normal samples; P3 all normal samples. Conclusion there is no influence of electromagnetic wave exposure against pancreatic histology and there is no effect of the ethanol extract of mangosteen peel against pancreatic histopathology in the given exposure to electromagnetic by handphone waves.

Keywords: *Handphone*, electromagnetic wave, pancreas, mangosteen peel, antioksidan