THE EFFECT OF GREEN BITTER MELON FRUIT FLESH (*Momordica charantia* L.) EXTRACT ON MICE (*Mus musculus*) ESTROUS CYCLE WHICH SUPEROVULATED WITH PMSG AND hCG

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ABSTRACT

This study aimed to determine the effect of bitter melon fruit flesh (*Momordica charantia* L.) extract on mice (*Mus musculus*) estrous cycle which superovulated with PMSG and hCG. Bitter melon fruit is known to contain flavonoids and triterpenoids that are antigonadotropin. Thirty two head of mice were randomly divided into four groups, then estrus superovulated by using 5 IU PMSG and 5 IU hCG intraperitoneally. The study used bitter melon fruit flesh exstract dosage 0 mg/g bw, 0.667 mg/g bw, 1.00 mg/g bw, and 1.33 mg/g bw in 5% CMC respectively.Treatment carried 0.5 ml orally twice a day for ten days, start a day after the injection of hCG. Identification of estrous cycle conducted by examining vaginal smear administered four times a day, for ten days after treatment. The results of the study showed that the bitter melon fruit flesh extract was not significantly ($p>0.05$) affect of proestrous and metestrous phase. All dose of bitter melon fruit extract in this study was significantly extend ($p<0,05$) of estrous phase, meanwhile 1.00 mg/g bw and 1.33 mg/g bw dose of bitter melon fruit extract was significantly shorten ($p>0,05$) of diestrus phase. There was no significantly different duration of a estrous cycle of mice treated with 0,667 mg/g bw and 1,00 mg/g bw, but there were significantly extend ($p<0,05$) of mice treated with all dose of bitter melon fruit flesh compared to nontreated mice. It was conclused that extract of bitter melon fruit flesh affected estrous cycle of mice.

Key Words : mice, bitter melon fruit, estrous cycle