

ABSTRACT

Pradanacita, I.D.G. Yadnya. 2014. **The Efficacy of grapefruit peels Ethanol Extract (*Citrus maxima*) againts *Ascaris suum* in vitro**. Final Assignment, Faculty of Medicine Brawijaya University. Advisor commision: (1) Agustina Tri Endharti, S.Si, Ph.D (2) dr.Nurul Hidayati, M.Sc.

Ascariasis is *one* of the most common human helminthic *infections* in Indonesia caused by *Ascaris lumbricoides* which is the highly pathogenic nematode parasite of small intestine causing malnutrition, growth and cognitive disorder, and digestive tract obstruction. The presence of adverse effect and high cost of conventional anthelmintic drugs led to the evaluation of medicinal plants as an alternative of anthelmintic drugs. The aim of this study was to investigate the ethanol extract of grapefruit peels (*Citrus maxima*) as an anthelmintic againts *Ascaris suum* *in vitro*, and to identify lethal time 100 (LT₁₀₀) and lethal concentration 100 (LC₁₀₀) toward ethanol extract of grapefruit peels (*Citrus maxima*). This study was an experimental laboratory with post only controlled group design. The research subject was actively living *Ascaris suum*, which were obtained from a slaughter house in Denpasar, Bali. Samples were divided into five treatment groups, there were negative control (0.9% NaCl), positive control (1% pirantel pamoate), and the treatment group with concentration of 20%, 30% and 40%, respectively. The data were statistically tested with the probit analysis in order to know lethal concentration 100 (LC₁₀₀) and lethal time 100 (LT₁₀₀) toward ethanol extract of grapefruit peels (*Citrus maxima*). The result of normality test shown normal distribution ($p > 0.05$). The result of probit analysis shown that the lethal concentration 100 (LC₁₀₀) of ethanol extract of grapefruit peels (*Citrus maxima*) was 39,45% while the lethal time 100 (LT₁₀₀) in 40% peels extract was 10 hours 88 minutes. It was concluded that ethanol extract of *Citrus maxima* (*Citrus maxima*) has the effect of anthelmintic againts *Ascaris suum* *in vitro*.

Keywords: anthelmintic, *Ascaris suum*, extract, *Citrus maxima*.