

ABSTRACT

Fasciolosis is a disease caused by the parasite Fasciola sp. which mostly attacks livestock such as cattle and can be transmitted to humans with a wider spread of infection due to Fasciola hepatica. The anthelmintic Albendazole has side effects of diarrhea, nausea, vomiting, dizziness, and skin rash. Garlic and onion contain the active substances allicin, flavonoids, saponins and tannins which are effective as anthelmintics. This study aims to determine the optimization time of the anthelmintic power of garlic and onion infusion against the death of Fasciola hepatica in vitro.

This research is an experimental study with a Post-test and Control Group Design conducted in December 2021- Juni 2022 at the Parasitology Laboratory, Department of Medical Laboratory Technology Ministry of Health Polytechnic Surabaya with the subject of Fasciola hepatica with negative control (NaCl 0.9%), positive control (Albendazole), and garlic and onion infusion with concentrations of 4%, 6%, 8% and 10%, respectively. Observations were made by counting the number and time of death of Fasciola hepatica every 15 minutes in 135 minutes.

The results of this research showed that garlic and onion infusion with concentrations of 4%, 6%, 8%, and 10%, respectively, was able to accelerate the death of Fasciola hepatica with the most effective concentrations being garlic at a concentration of 10% and onions at a concentration of 8% and 10%. The conclusion was that there was no significant difference in time optimization of anthelmintic infusion of garlic and onions at the same concentration and positive control with 10% garlic, 8% and 10% onion concentrations on the mortality of Fasciola hepatica.

Keywords : Anthelmintic, Garlic, Onion, Infusion, Fasciola hepatica