

Abstract of the DVM thesis No. 19396 Faculty of veterinary medicine, Urmia University, The Academic year 2023-24

Author: seyed Mohammad mehdizadeh

Title of thesis: Study of the solicial effects of Lavender (*Lavandula Angustifolia*) and Green Tea (*Camellia sinensis*) extracts on protoscoleces of hydratid cyst *in vitro*

Abstract:

The use of Chemotherapy for the treatment of hydatid cysts can be problematic due to different adverse effects. As a result, there is an increasing interest in non-chemical alternatives, such as medicinal plant extracts as new therapeutic tools against hydatid cyst. In the present study, various concentrations of Lavender and Green tea extract at different times were evaluated under laboratory conditions for their protoscolicidal effects on hydatid cysts. Protoscolices of hydatid cysts were aseptically collected from livers of infected sheep and were exposed to three different concentrations of Lavender and Green tea extract (10, 25 and 50 mg /ml) for (10, 20, 30 and 60 min.) Viability of protoscolices was determined by 0.1% eosin staining. The results indicated that Lavender and Green tea extracts at concentration of 50 mg/ml destroyed all protoscolices after 20 min. The results also showed that the extract of these plants produce high scolicial activity; However, *in vivo* efficacy of these plants remains to be studied for treatment of hydatid cysts in humans and herbivorous animals.

Keywords: Protoscolecs, Green tea (*Camellia sinensis*), Lavender (*Lavandula angustifolia*), hydatid cyst, *in vitro*

