

ACACIA EXTRACT ACTIVITY IN TREATMENT OF OVINE DERMATOPHYTOSIS

Ammar Talib Naser, Samir Raad Abdulhussain, Suha Taleb Yahya, Ghassan H. Jameel* and Salah Noori Ibrahim

Department of Microbiology, College of Veterinary Medicine, University of Diyala, Iraq.

*e-mail : ghassan_immune@yahoo.com

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ABSTRACT : Dermatophytosis or ringworm in sheep is a zoonotic disease of keratinized tissues of skin caused by several types of fungus. Which are transmitted during wool shearing result in releasing of spores attached to wool shafts in closed area. February was records the highest percentage of infection reach to (50%) then, March reach to (30%), while the lowest percentage seen in April (20%). The main fungal species that caused this infection includes *Trichophyton verrucosum* and *Trichophyton mentagrophytes*. A daily local application of 40% acacia extract ointment to the animals in group(a) led to cure all the treated animals in few days and 100% rate. Recovery was observed after 10 days from application started by scales dropping followed by growing of the wool and significantly importance at ($p < 0.05$) when compared with other preparation as iodine ointment. These findings show that ointment can give successful results in the treatment of ringworm disease in ovine.

Key words : Ovine, dermatophytosis, ringworm, acacia.

INTRODUCTION

Dermatophytosis or ringworm in sheep is a zoonotic disease of keratinized tissues of skin caused by several types of fungus. Which are transmitted during wool shearing result in releasing of spores attached to wool shafts in closed area. Newborn lambs with irritated skin are very susceptible to infection. Direct contact with infected animals and fomites considered as main source of infection (Scott, 2007).

Geographical and environmental conditions have important role in involvement of the disease in addition to host species. *Trichophyton verrucosum* and *Trichophyton mentagrophytes* are the usual causative agents involved in sheep ringworm in different regions of the world with high degrees of temperature (Siegmund, *et al*, 1979, Quinn *et al*, 2011). The predisposing factors of this disease are animal age and trauma (Oborilova *et al*, 2005). The infected propagates as hyphae and arthrospores of *Trichophyton verrucosum* are the main routes of infection to the young lambs then transmitted to other population in the herd rapidly (Wabacha *et al*, 1998; Kane *et al*, 1997; Weber, 2000). Spores may resist the environmental condition for 2 to 3 years (Guddling *et al*, 1995). Human outbreaks of *T. mentagrophytes* infection have been reported due to direct contact with

infected animals or indirect contact with infectious propagates. Different regions in the body and the face are targeted (Roman *et al*, 2001; Ming *et al*, 2006).

The presence of infected debris in the bed and buildings considered as the main causes of the infection between animals housed in closed area (Dehghan *et al*, 2009). Different antifungal agents have been successfully used in treatment of ringworm such as azole compounds, iodine preparation as local application and griseofulvine orally (Radostits *et al*, 2000) and with 5% lime-sulfur solution or tamed iodine (Pier, 1992). Ointment prepared from *Calvatia craniiformis* mushroom has been gave good result in treatment of ringworm infection in sheep (Jameel *et al*, 2014). Ivermectin has been injected subcutaneously in treatment of ringworm infection in sheep (Jameel *et al*, 2014).

The signs of the disease appear after 1 to 4 weeks from contact with the spores of fungus started from the skin, which is revealed circular area of wool loss in the ears, head, loin and neck about 2 to 2 inches in diameter revealed presence of a gray-white scab. Clear fluid or bloody is oozed from the skin under the scab (Pier, 1992; Acha *et al*, 2003).

However, in Iraq limited studies on sheep ringworm have been done and the disease is considered to be