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## A comparison between effects of *Aloe vera*, *Vinegar* and *Salvia officinalis*, and *Pine cone* on treatment process of dermatophytosis in calves

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Medicinal plants use in treatment of human and animal disease. During the time can not change the view of advantage of traditional medicine than modern medicine. If we attention to side effects of chemical drugs therefore the traditional medicine was selected. In this time production medicinal plants in the main purpose in must of the countries in all of world. In this study 30 calves (6-8 month) selected in three groups with ten members and examined. At first step sampled to identify the type of fungus. In first group used Phyto ointment, in second group Salvia Officinalis and Pine cone, in third group Aloe Vera and Vinegar. The treatment was done twin per day via superficial ointment. The libratory finding shown Trichophyton Verrucosum were separated from infected area. The treatment period with Aloe Vera, Vinegar and Salvia Officinalis, Pine cone and Phyto ointment were 6, 13 and 17 days. Finally sampled and cultured from infected site and Trichophyton Verrucosum was not observed. According the result usage of medicinal plants in treatment of dermatophytosis has better than synthetic and chemical drug. The treatment process by medicinal plants is better and faster than the other methods.

Keywords: Dermatophytosis, Aloe Vera, Vinegar, Salvia Officinalis, Pine cone, Phyto ointment, calf

## Effects of salmeterol and fluticasone propionate on regulation of chemokines by mouse dendritic cells

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Dendritic cells (DCs) are crucial immune cells detecting microorganisms and linking innate and adaptive immunity. Various microorganism-derived components, activate DCs through various pattern recognition receptors. Chronic obstructive pulmonary disease is a major and increasing global health problem. COPD has a complex underlying pathophysiology involving inflammatory and structural cells, all of which have the capacity to release multiple inflammatory mediators. Chemokines play major roles in recruitment of neutrophils as a crucial cells in release of elastase in to the lungs. The combination of inhaled corticosteroids and long-acting β2-adrenoceptor agonists is increasingly used in chronic obstructive pulmonary disease and lung emphysema. In this study, we investigate the effects of salmeterol and fluticasone on release of chemokine (MIP-2) by mouse myeloid dendritic cells. Mouse dendritic cells were cultured with GMCSF (20 ng/ml) for 9 days and after sorting by flowcytomery (FACS), cells were pre-incubated with salmeterol (10-7 M) and fluticasone (10-9 M) for 30 and then stimulated with LPS (1000ng/ml) for 2 h and 16 h. The amount of MIP-2 release and expression of MAP kinase phosphatase (MKP-1) were determined by ELISA and RT-PCR, respectively. LPS induces an increased of MIP-2 by DCs. Salmeterol and fluticasone alone decreased release of MIP-2. Interestingly, the combination therapy had an additive suppressive effect on the LPSinduced production of MIP-2. The latter could be explained by an increased mRNA expression of MKP-1. This leads B and MAPK pathways and, hence, tokeventually to suppression of both the NF- less MIP-2 production by the DCs. These data are in support for the use of a combination therapy for additional suppression of MIP-2 as a chemokine for recruitment of neutrophils.

Keywords: Dendritic cells, chemokines, salmeterol, fluticasone and signal transduction