

SUCCESSFUL TREATMENT OF DERMATOPHYLOSIS USING HOMEOPATHY MEDICINES IN COWS

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ABSTRACT

Six pluriparous Holstein Friesian cross bred cows of age between 4 years to 6 years with dermatophilosis were examined and treated with Homeopathic medicines. Direct microscopic examination of the impression smears of skin lesions and bacterial culture confirmed the organisms *D. congolensis*. The animals were treated with homeopathic medicines, Rhus tox 30 C, Sepia 30 C, Thuja 200X and Psorinum 30 C. Treated animals showed cessation of itching, oozing and shedding off scabs from 3rd day to 5th day and the crusts started falling off from the lesions between 3rd to 4th day of treatment. Hair regrowth started from 12 days and complete healing without any scarring was observed within 25 to 28 days. The disease did not recur on the treated animals during the follow up period of one year even during the next rainy season.

KEY WORDS: Cows-Dermatophilosis - Homeopathic medicines -

INTRODUCTION

Dermatophilosis is a contagious zoonotic skin disease (Dalis *et al.*, 2010) caused by *Dermatophilus congolensis*, which is aerobic, actinomycete, a gram positive bacterium that produces motile zoospores (Hirsh *et al.*, 2004). It is commonly called cutaneous streptothrichosis in cattle, goats and horses (Nath *et al.* 2010). In cattle it may be an acute or chronic, partial or progressive exudative dermatitis that could lead to reduction of milk production, affecting weight gain and reproductive performance and death of the animal, and cause economic losses to farmers (Dalis *et al.*, 2007 and 2010). The treatment of dermatophilosis still remains a matter of great concern owing to the recurrence of the disease and the difficulties to cure it using antibiotics by the parenteral route (Nath *et al.*, 2010). Hence a study was undertaken to evaluate the efficacy of Homeopathic medicines in treatment of dermatophilosis in cows using homeopathic medicines.

MATERIALS AND METHODS

Six pluriparous Holstein Friesian cross bred cows of 4 to 6 years of age belonging to an organized dairy farm were presented at Veterinary University Training and Diagnostic Centre, Thirupparankundarm, Madurai with the history of having skin problems, anorexia and reduction in milk yield. Clinical examination of the animals revealed that numerous papules extending the back, side, groin as well as perineal region, udder and hind limbs in three animals and similar papules were markedly fewer in number in three cows. Closer examination of the skin surface revealed a partially dried crusts, serous exudate, which was perforated by hair. Each papule appeared as an area of matted hair giving paint brush appearance, which could be detached together with a crust, eliciting a pain reaction in animal and leaving a raw, denuded, exudative lesion. The body temperature, pulse rate and heart rate were within the normal physiological range. Based on the history and clinical examination the cases were diagnosed as dermatophilosis. The samples comprising of crusts and plucked hair were collected for bacterial culture and impression smears from the base of the freshly removed scabs were used for direct microscopic examination which confirmed the organisms *D. congolensis*.

TREATMENT AND DISCUSSION

Since the recurrence of dermatophilosis was reported by the farmer, it was decided to study the therapeutic efficacy of homoeopathic preparations available in the market to treat various human skin infections on bovine *Dermatophilus congolensis*. The animals were treated with liquid Rhus tox30 C, Sepia 30 C and Thuja 200X @ 10 drops each (18G needle drop), once in three hours for the first five days and four times a day for 10 days. Psorinum 30 C was administered intercurrently @ 10 drops twice a day upto 7 days. It was advised to the owner to add the prescribed homeopathy medicine on lump of jaggery and to feed the jaggery orally to the animals.

On close observation during the treatment, the animals showed cessation of itching, oozing and shedding off scabs from 3rd day to 5th day depends on the severity. The crusts started falling off from the lesions between 3rd to 4th day of treatment leaving erythematous areas. The falling of the crusts was progressive and complete within 8 days of the treatment and the rough border of papules and crusts had disappeared, leaving only soft grayish white scars on which hair regrowth was clearly noted. Hair regrowth started from 12th day and the skin of the animals healed completely and appeared normal without any scarring within 25 to 28 days. The disease did not recur on the treated animals during the follow up period of one year even during the next rainy season.

Dermatophilus infection had been observed by various workers to assume epizootic form during the rainy season when relative humidity is also high (Dalis *et al.*, 2010). Several factors are involved in the pathogenesis of Dermatophilosis like mechanical injury to the skin, rainfall, tick infestation, concurrent diseases and stress that compromise the host immune system.

When the animals are parentally treated with antibiotics some crusts could remain and the rough border of the damaged skin did not completely disappear. *D. congolensis* which can persist in such areas, starts to develop again in the next rainy season. This could explain the fact that none of the antibiotics prevented the recurrence of the disease on treated animals (Ali-Emmanuel *et al.*, 2003). Other topical treatments have failed because of the thickness of the crusts preventing the drug from coming into direct contact with the infected areas.

Homoeopathic medicines are inexpensive and non toxic system of healing. Various skin diseases that cause itching can be effectively treated using Rhus tox (Pitcarin and Susain, 2005) Sepia (Boger, 2005), Thuja (Chang *et al.*, 2000) and Psorinum (Gunavate and Sharda, 2002). Arima *et al.*, (2003) successfully used Thuja for the treatment of eczematous lesion of atopic dermatitis caused by staphylococcal infection. Thuja 30 showed 100 % cure in various skin diseases like hyperkeratosis, parakeratosis, pachyderma, urticaria and warts which had been declared incurable by the other system of treatment (Medrewar, 1999). It was observed from the present study that the homeopathic treatment with Rhus tox 30 C, Sepia 30 C and Thuja 200X and Psorinum 30 C induced softening of the hard crusts and their shedding from third day of the treatment and complete recovery within 25 to 28 days without recurrence even during rainy season. Furthermore, this treatment is cheaper, easier to administer, saves the owner to discharge the cumbersome job of daily external medication and cost of antibiotic administration. The promising results of the present study indicate that homeopathic drugs could serve effectively for the treatment of bovine dermatophilosis. It is the first report for the use of homeopathic medicines to cure dermatophilosis in animals.

REFERENCES :

- Ali-Emmanuel, N., M. Moudachirou, J.A. Akakpo and J. Quetin-Leclercq (2003). *Journal of Ethnopharmacology*, **86**:167-171.
- Arima, Y., Y. Nakai, R. Hayakawa, and T. Nishino (2003). *J. Antimicrobial Chemotherapy*. **51**: 113–122.

- Boger, C.M (2005). A Synoptic Key of the Materia Medica. Indian Books & Periodicals publishers. 290-334.
- Chang, L.C., L.L. Song and E.J. Parle (2000). *J. Nat. Prod.* **63**: 1235-1238.
- Dalis, J.S., H.M. Kazeem, A.A. Makinde and M.Y. Fatihu(2007). *VJVS*, **1**: 56- 58.
- Dalis, J.S., H.M. Kazeem, A.A. Makinde and M.Y. Fatihu(2010). *Africa Journal of Microbiology*, **4**: 1475-1476
- Gunavate, S.M and B. Sharddha (2002). The amazing power of homoeopathy : Record of 200 difficult cases. Jain Publishers (P) Ltd., New Delhi, India.
- Hirsh, D.C., N.J. Maclachlan and R.L. Walker (2004). *Veterinary Microbiology*. 2ndedn. USA: Black Well Publishing Company. 220-221.
- Pitcairn, R.H and H. Susain,(2005). Dr. Pitcairn's complete guide to natural health for dogs and cats. Holtzbrinck Publishers. 305.
- Medrewar, B.P (1999). *Therapeutics of Veterinary Homeopathy and Repertory*. 2 Ed., B. Jain Publishers (P). New Dehli. India. 290.
- Nath, B.D., M.S. Ahasan, M.S. Rahman and A.K.M.F. Huque (2010). *Bangladesh Res. Pub. J.* **4**:198-207

