



## TREATMENT OF CANINE DERMATOMYCOSIS USING FLUCONAZOLE

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Dermatological problems in dogs are one of the common and daunting tasks encountered by a pet animal practitioner (Chandler, 1991). Dermatomycosis is an infection that invades different layers of skin and occurs more frequently in warm, humid tropical areas when animals are housed in conditions of poor sanitation. Younger and immuno-suppressed animals show higher incidence of this disease. The new antimycotic drug, Fluconazole is widely used to cure fungal infections in human. The study was contemplated to find the effect of the drug in the canine dermatomycosis.

### CLINICAL SIGNS, DIAGNOSIS AND TREATMENT

Two dogs were presented in Veterinary hospital, Koduvally, Kozhikode, Kerala, a nondescript male dog of age one year and a female Labrador of 1.5 years. Severe alopecia, pruritus and scaly skin were noticed along with foul odour. The male dog was treated earlier with ayurvedic creams and shampoos, while the second case was treated with Ivermectin and Griseofulvin for 3-4 weeks; both the therapies couldn't cure the condition. Skin scrapings from both the cases were collected carefully and prepared slides using 20% potassium hydroxide solution for microscopical examination. Gently warmed the slides with low flame, applied cover-slip and examined under the microscope. Both the specimens were positive for ectothrix spores. The treatment started with Fluconazole 150mg tablets orally ('Sysflu') @ 10 mg/ kg body weight, vitamin injections ('Beplex forte') and topical application of 5% povidone iodine solution. The animals were observed every week.

### RESULTS AND DISCUSSION

Changes were noticed in both the cases every week and the cases were completely cured by 6-7 weeks. In first dog, a few new hairs were noticed on face and tail and pruritus subsided after 2 weeks. After 4 weeks the

lesions were found to be almost disappearing. A lot of new hairs appeared on the body also and lively appearance of the skin was also evident. After 6 weeks, the case was completely cured. In the second dog, no special changes were detectable in the first two weeks. After 4 weeks there were few new hair growths on the areas of lesions and after 6 weeks the lesions were started disappearing gradually. A lot of new hairs were grown with lively appearance of the skin. The lesions were almost disappeared. The condition was completely cured by 7 weeks.



### DISCUSSION

The dose of the drug was calculated according to the rate suggested by Adams (2001). Weekly administration of the drug adopted in Candida infections and in humans and tinea infections (Tripadi, 1999) was found to be effective in the case of dogs also. Pharmacokinetic parameters are constant across man and dog in case of fluconazole, which may be the reason for similar response to the drug in dogs when given at weekly intervals. The response to the treatment and the growth of new hairs in 2- 3 weeks and the disappearance of the lesions in 5-7 weeks were in



accordance with the findings of Or (2000). There were no toxicity symptoms during the treatment period. The effective response to the treatment was obtained probably due to drug's complete absorption from the gastrointestinal tract, increased aqueous solubility which is acid independent and the maintenance of the concentration in the skin similar to plasma (Adams 2001). The failure of the griseofulvin treatment can be attributed to the inefficient absorption of the drug from digestive tract and the delayed accomplishment of the desired concentration of the drug in the skin (Greene 1998). The usage of drug in the dermatomycosis cases was found to be very effective and economical.

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## RENAL CALCULI IN A COW

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A cross-bred cow aged 2 years was presented with a history of dysuria and anorexia. No improvement was noticed upon treatment. The animal died after 1 week. On postmortem examination, the kidneys, ureter, and the bladder revealed calculi of varying sizes ranging from 2 mm to 6.5 cm (fig.). The kidneys appeared pale and soft. All the calyces contained calculi. The largest calculi was recovered from the pelvis of the right kidney. Both the ureters were occluded with calculi. The bladder also contained calculi of varying sizes. The calculi were of different shapes with sharp edges. The chemical examination revealed the calculi were of hippuric acid. No references could be traced out regarding the observation of a kidney stone as big as this.

