



Dermcare-Vet

Derm News

What's news at Dermcare...

CONTACT US AT:

Dermcare-Vet Pty Ltd
22 Aranda St
Springwood Qld 4127
Phone: 07 3387 9700
Fax: 07 3208 3965
Email:
dermcare@dermcare.com.au

SALES CONSULTANTS:

Ian Fontaine:
(NSW/SA/WA)
Mobile: 0417 248 518
Fax: 02 9953 5360
Email:
ianfontaine@bigpond.com

Paul Kimberley:
(VIC/TAS)
Mobile: 0416 251 937
Email:
kimberlp@primus.com.au

Alice Cooper:
(QLD/NT)
Mobile: 0419 773 376
Email:
alice.cooper@dermcare.com.au

In this issue:

- ① We have moved!
- ② A little bit.....
- ③ Website up and running

DERMATOPHYTOSIS:

Ringworm by Another Name

Dermatophytosis (commonly referred to as ringworm) is caused by mycelial fungi with tropism for the keratinized cells which occur on the skin surface and in hair and nails. The animal dermatophyte, ***Microsporum canis***, is common in young cats and those obtained from animal shelters, pet stores and breeding colonies. Particularly high infection rates are found in Persians & show cats.¹ In a survey of 369 cats with dermatophytosis in the U.K., 94% were caused by ***M.canis***.¹ Some 19% of shelter cats may carry ***M.canis*** and not have clinical signs. In fact, the cat is considered the natural host of ***M. canis***. The less common dermatophytes are ***M.gypseum*** isolated from soil and ***Trichophyton mentagrophytes*** isolated from rodents.


Zoonosis

Dermatophyte infections in animals, especially ***M. canis***, can transmit to humans. In humans, ringworm of the head is called Tinea capitis, the most common cause in children is ***M.canis***.^{2,3} Children and immunocompromised humans are particularly susceptible and can suffer severely if affected. In severe infections of children, hair loss can be permanent and disfiguring.^{4,5,6} Human health authorities have called for increased vigilance and improved treatment of animal dermatophytosis by the veterinary profession because of the increased incidence of this zoonosis.

Studies

Epidemiological studies of human cases reveal the risk of exposure with 50% of people developing lesions when exposed to symptomatic or asymptomatic infected cats. Also in 69.9% of all households with infected cats at least one person became infected.⁷ These studies and others are causing alarm with human health professionals. Epidemiological studies of this alarming increase in human ringworm has revealed most are due to ***M.canis***. These studies have also revealed that serious infections are occurring in cont page 3

Break the Ringworm Cycle



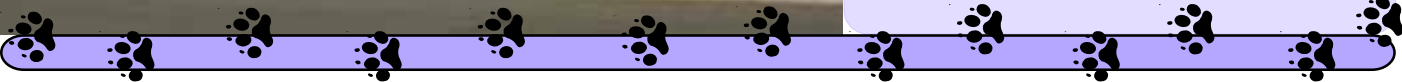
Kills spores on coat eliminating the need to clip.
Reduces environmental contamination
and zoonotic potential.

For details: Dermcare-Vet Pty Ltd, 22 Aranda Street, Starks Creek QM 4127. Ph: +61 7 3508 4261
for Australia, Asia, New Zealand and South Africa: dermcare@bigpond.com

WE HAVE MOVED!



We have moved to accommodate our growing number of staff. It is a welcome change from working in one small office above the Albert Animal Hospital. At least there won't be any more fights over who gets to use the computer, or who sits on the good chair. Our fax number remains the same as our new building is not too far away from the old premises. Our new facility has bigger fully equipped Microbiology, Immunotherapy and Chemical Research Laboratories. As well as office space for 7 staff!



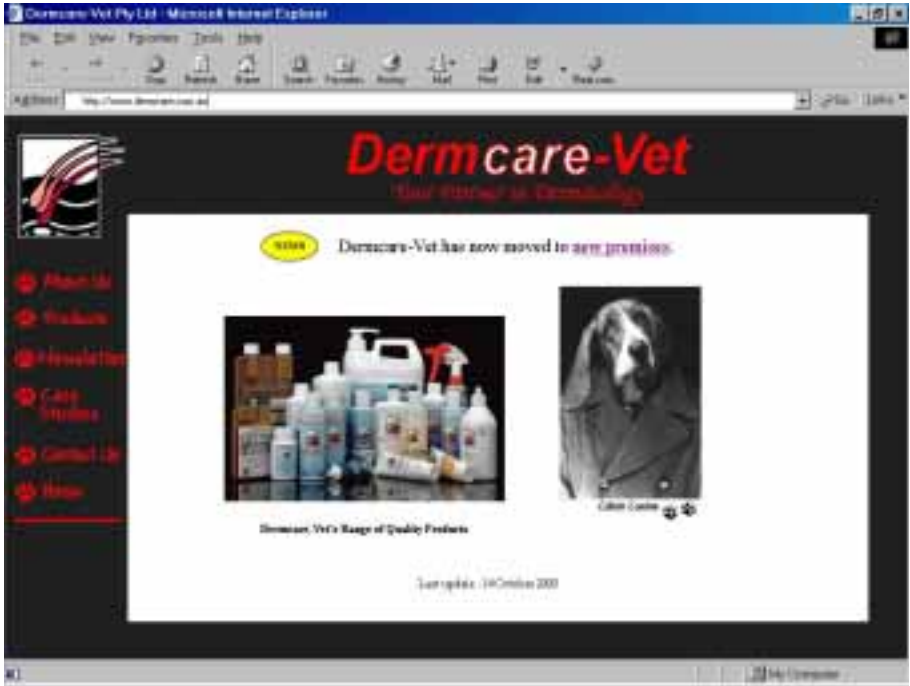
V
I
S
I
T

U
S

ON THE NET

Dear Veterinarian,

Dermcare has now joined the vast expanse that is cyberspace. When you visit our web site you have immediate access to technical bulletins on all of our products. You also have access to current and past copies of our Derm News. Download this information to your computer or print it out for your files. We have made room for Dermatology Case Studies, however this page is under construction. We will let you know when it is ready. We hope you find value in the web site. The creation of the web site has been a huge team



www.dermcare.com.au

effort. Please send us your comments. Hope to hear from you very soon and have a safe and Happy Christmas and New Year.
The Dermcare Web Team.

children and patients receiving chemotherapy for cancer or organ transplants. Infections are also occurring in AIDS sufferers. The increase in incidence parallels the increasing acceptance of cats as suitable pets in small living quarters (apartments) and parallels the increased incidence of human illness and treatments causing immunological compromise.

Children developing *M.canis* in the scalp lose their hair and develop thick, scaly exudative and kerion reactions that disfigure, cause permanent hair loss and may take years to respond to treatment. The social consequences to such children who are often 5 to 15 years of age, is retarded social and educational development due to being removed from schooling by school authorities and cruelly ostracised from play and social activities by other children. Ringworm in veterinary clinic staff occurs from time to time, fortunately due to the older age group, exposed lesions are usually of the benign localised type. An investigation of 50 clinics revealed 15 to have *M. canis* isolated from floors and utensils in a single sampling. Veterinary practitioners must be diligent in protecting themselves and their employees from this very unpleasant zoonosis.

The spread of infection between animals and from animals to humans is by direct contact with infected animals or with infected hair or scale in the environment. Infected hairs are fragile and dislodge easily from the animal. These hair fragments contain infectious arthrospores and are an efficient means of transmission to other hosts. Such materials can remain infectious in the environment for several months (up to 18 months or longer for *M. canis*).⁸ Grooming tools are an important means of infection and airborne transmission of spores has been recorded in catteries and kennels.¹

The veterinary profession has always considered itself a protector of human health, both through our role in food production and as community based veterinarians. In healthy cats (excluding Persians) many cases of feline dermatophytosis are self-limiting and relatively short lived resolving in 60 - 100 days. However, during that time and even after self cure, the cat sheds infected arthrospores from the coat because dead hair has remained infected.

Treatment

Systemic antifungal treatment with Griseofulvin and imidazoles are effective, but do not sterilise existing hairs (only new hair growth is sterile), the result

being it takes many months for an animal to become non-infectious to other animals and in-contact humans.^{9,10}

Based on clinical evidence and theoretical antifungal activity, various topical treatments are listed in textbooks for the treatment and decontamination of infected animals and the environment.¹¹ Recent critical evaluation of these treatments failed to support such recommendations.¹²

A veterinarian treating an infected pet cat or a cattery is limited by the lack of a proven treatment to limit contagion to other animals and humans. Effective treatments involve a common strategy:

- (1) a systemic antifungal, the most effective and available of which are Griseofulvin or Ketoconazole, which will sterilise all new hair growth,
- (2) elimination or sterilisation of the existing infective hair by clipping and burning of the hair or alternatively the use of a topical antifungal (Malaseb) to all of the coat, and
- (3) decontamination of the environment.

Problems then arise with decontamination of the coat and the environment. Clipping all the coat has the problem of client resistance, spread of infection to the environment while clipping (usually the Vet Clinic) and on the cat due to microtrauma. Studies have shown that clipping spreads the infection by liberating arthrospores into the environment and on to the animal¹². The microtrauma caused by clipping also aids in the invasion by the dermatophyte. Only concentrated bleach and formaldehyde are effective at decontaminating the environment and infective hairs,

cont page 4




Did you know that Aloveen Oatmeal Shampoo and Aloveen Conditioner comes in a convenient and economical pack - 'Aloveen Starter Pack'?

Can also be purchased separately

Available from your wholesaler NOW!

however these are too caustic to the cat and the environment (bleach) or are public health risks (formaldehyde).

Malaseb

Recent studies in the U.K. by Dr. A. Sparkes and co-workers at the Bristol Veterinary School and Dr. S. Paterson, a specialist dermatologist, have shown that shampooing the infected cat with Malaseb will sterilise the cat's coat and combined with simple vacuuming, decontaminate the environment. This reduces the potential to infect family members and other pets as well as reducing the time to clinical cure when used with Griseofulvin. Shampooing with Malaseb is believed to physically remove infected particles from the coat. Chlorhexidine and Miconazole are antifungal drugs with synergistic anti-dermatophyte interactions.^{13,14,15} Malaseb shampoo combines the beneficial effects of physically removing infected particles and killing the organism. This helps to overcome the limitations of systemic Griseofulvin treatment which does not sterilise infected hair, leaving spores in the hair coat which can then contaminate the environment and spread the infection to other animals as well as man. Malaseb is so effective against Dermatophytosis, all that needs to be recommended in the house is vacuuming up all the cat hair. Copies of the Malaseb studies are available from your Territory Manager upon request. 

REFERENCES

- . Anon (1998), Ringworm (dermatophytosis), *JSAP* 39 pp 362-366
- . Moschella, S., & Hurley, H., (1985), Superficial Mycoses, *Dermatology* volume 1, 2nd Ed., W.B. Saunders Company, Philadelphia, pp 743-749.
- . Lunder, M. & Lunder, M., (1992), Is *Microsporum canis* infection about to become a serious Dermatological problem?, *Dermatology* 184: 87-89.
- . Hoeprich, P. et al, (1994), Integumentary Infections, *Infectious Disease - A Treatise of Infectious Process*, 5th Ed., J. B. Lippincott Company, Philadelphia, p1042-1044.
- . Stephens C. J.M., et al, (1989), Fungal Kerion -Total Scalp Involvement due to *Microsporum canis* Infection. *Clinical and Experimental Dermatology*, 4:442-444.
- . Canizares, O. & Harman, R., (1992), Cosmopolitan Superficial Fungal Infections - *Clinical Tropical Dermatology*, 2nd Ed., Blackwell Scientific Publications, Boston, pp 24-27.
- . Pepin, G. A. & Oxenheim, M., (1986) Zoonotic Dermatophytosis (ringworm). *Veterinary Record*, 188, 110-111.
- . Sparkes, A. (1994) *Microsporum canis*: Inapparent carriage by cats and stability of arthrospores, *JSAP* 35:pp 397-401.
- . Avery G, (1978) *Skin Infections, Drug Treatment - Principles and Practice of Clinical Pharmacology and Therapeutics*, Adis Press, Sydney, pg 335.
- . Plumb D.C., (1998) *Veterinary Drug Handbook* 2nd Ed., Iowa State University, Iowa Press, pp 299-301
- 1. Scott, D., et al, (1995), *Fungal Skin Disease*, Muller & Kirk's Small Animal Dermatology, 5th Ed., W.B Saunders Company, Philadelphia, pp 351-354.
- 2. De Boer D.J., & Moriello K.A., (1995) Inability of Two Topical Treatments to influence the course of experimentally induced Dermatophytosis in Cats, *AVMA* 207(1): 52-57.
- 3. Janssen P.A.J. & Van Bever W.F.M., (1979), "Miconazole" In *Pharmacological and Biochemical Properties of Drug Substances*, Vol 2 (Ed oldberg M.E.) American Pharmaceutical Association, Academy of pharmaceutical Science, Washington DC, pp 333 - 354.
- 4. Denton, W., (1991) 'Chlorhexidine' in *Disinfection, Sterilisation and Preservation*, 4th Ed., W.B. Saunders Company, Philadelphia, 362-370.
- 5. Daneshmend T.K. & Warnock D. W., (1983), Clinical Update on Feline dermatophytosis Part II. *Compendium of Continuing Education* 17: 1471 - 1479.

A little bit goes a long way!

Remember.....

ALOVEEN Intensive Conditioner is designed to be used sparingly. After bathing in ALOVEEN Shampoo, lightly towel dry the animal. To apply ALOVEEN Intensive Conditioner squeeze a small amount into the palm of your hand. Spread the conditioner between your hands and then apply evenly to the animal coat. ALOVEEN Intensive Conditioner is designed to be left on for maximum effect. Dry and brush the coat as usual.

Meet 'Winnie' Cowper - she is evidence that Aloveen leaves your pet with a clean and *SHINY* coat. This photo was kindly supplied to Dermcare by Rebecca Cowper from Balcatta Veterinary Clinic in W.A.

