Título DERMATOPHYTOSIS IN PETS: COMPARISON OF DIFFERENT COLLECTING AND DIAGNOSTIC TECHNIQUES

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Resumo:

Dermatophytes are important fungi for public health; they are transmitted between animals and humans, causing zoonoses. They can be isolated from animals with or without lesions, which represent sources of infection for other animals and humans. Diagnosis confirmation is carried out by isolating the fungus into culture. Direct examination through the visualization of artrhoconidia in the infected hair is another form of diagnosis. It is considered to be a low sensitivity method, although there are few articles comparing these techniques. Two of the techniques to collect clinical samples are superficial skin scraping/hair traction, and rubbing the haircoat with a carpet (5x5 cm). The objective of this study was to compare these two collecting and diagnostic techniques. To compare the collecting ones, we collected 51 samples originating in pets (35 dogs, 13 cats, 2 guinea pigs and 1 rabbit), using both methods mentioned above. To compare the diagnostic techniques, 52 samples (35 dogs, 14 cats, 2 guinea pigs and 1 rabbit) have been used for direct examination and culture. Both carpets and skin scales/hair were seeded on Mycosel agar (BBL) and incubated at 25°C for up to four weeks. Colonies were submitted to microculture and identified by their macro-and-microscopic characteristics. For direct examination, skin scales/hair have been clarified with 20% potassium hydroxide, and optical microscope readings were taken at 100X and 400X. Statistical analysis to compare the employed techniques was performed using the McNemar test (p=0.05). Isolation of dermatophytes was obtained in 19/52 (37%) and 18/52 (35%) samples, collected respectively by hair traction and carpet friction, with no statistical differences between the two methods (p=1). It was isolated *Microsporum canis* (16/19 - 84%) in 11 dogs and 5 cats, *M. gypseum* (1/19 - 5%) in a dog, and *Trichophyton quinckeanum* (2/19 - 11%) in two guinea pigs. Between the diagnostic techniques, 9/51 (17%) samples were positive on direct examination and 18/51 (35%) positive in culture, though the last method was statistically superior (p=0,007). We conclude that there is no difference between the collecting techniques employing, and either of the skin/hair scraping or carpet friction can be adopted. However, it is confirmed that preference should always be given to the culture, which is considered the gold standard test. Direct examination should be considered only when it proves impossible to perform mycological culture.

Keywords: Dermatophytes, Direct examination, Mycological culture, Mycological Diagnosis, Collecting methods

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