

Delusions of parasitosis in clients presenting pets for veterinary care

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ABSTRACT

The syndrome delusions of parasitosis (DP) constitutes a psychiatric disorder of humans in which patients falsely believe that they are infested with parasites. This report describes 2 cases of DP observed at the Onderstepoort Veterinary Academic Hospital (OVAH). The first case involved a 34-year old, single female, who believed that she and her three cats were being parasitised by insects of unknown origin. Before referral to the OVAH, she had taken her cats to 2 other veterinarians and had consulted 2 dermatologists herself. The second case was a single male who believed that he was being parasitised by insects originating from his cat. A full diagnostic evaluation performed on all 4 cats failed to reveal any dermatological abnormalities. No parasites were seen or cultured from any of the cats.

Key words: dermatological assessment, healthy veterinary patient, psychiatric disorder.

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INTRODUCTION

The syndrome delusions of parasitosis (DP) constitutes a well-recognised psychiatric disorder of humans in which patients have a false and fixed belief that they are infested by parasites^{8,11}. In most cases, DP patients are able to function normally in all other aspects of their lives, in spite of their fixed delusions^{5,9}.

The exact prevalence of DP is not known², but a large referral-based human clinic in the USA reported seeing approximately 20 new cases per year⁵. Entomologists are often the first professionals to be consulted by individuals suffering from DP⁵. Over a period of 12 months, 156 cases of DP were reported by 86 entomologists surveyed in the USA. Based on Entomological Society of America data, around 2954 new cases of DP are recognised per year⁶.

A recent report⁹ described a case of DP in which a middle-aged, single female presented her healthy cat with a complaint that both she and the cat were being parasitised by insects. A thorough clinical evaluation of the cat revealed no sign of parasitic or other skin disease. The cat was treated with fipronil, and the owner was instructed to treat the home environment for fleas. Follow-up examination and diagnostic testing revealed once again that the cat was healthy and free of para-

sites. The cat was treated empirically with ivermectin, but in spite of the treatment, the owner insisted that there was no improvement in the situation she experienced. She was eventually referred to a dermatologist familiar with DP.

In another case report, a 58-year-old woman, married to an alcoholic, believed that she had caught scabies from her cat⁷. The cat in this case was not examined. DP has rarely been described in veterinary publications, and no such cases have been reported in the South African veterinary literature.

The purpose of this report is to increase awareness of DP and its possible presentation among practising veterinarians. It will serve to assist members of the profession in recognising and dealing with the condition.

CASE 1

A 34-year old, single female was referred to the Onderstepoort Veterinary Academic Hospital (OVAH) with her 3 Persian cats. She complained of severe pruritis caused by small insects on both herself and her cats. The cats had been seen by at least 2 other veterinarians before referral to OVAH. The referring veterinarian could not make a diagnosis, although a fairly complete skin evaluation was performed on the cats. It included multiple skin scrapings, hair plucks, faecal flotations, acetate tape impressions and fungal cultures. The condition had been present for a period of approximately 4 months. The cats were on a commercial diet, were

vaccinated annually and de-wormed regularly. The owner had suppurating skin lesions on her cheeks and chin.

She described the insects as being very small, white and hair-like with wings. These winged insects would allegedly produce eggs from which small, black, glittering, fast moving insects would hatch.

Insects were perceived as being active only between 24:00 and 04:00, and thus had not been seen by other people. They would make a humming sound that, according to the owner, irritated both herself and her cats. She believed that the insects had eaten through the electric wiring of her radio, and that they had destroyed the rubber seals of her fridge. She also believed that they had made their way through steel containers to get to her cereals and other food.

The client took a small fly to the referring veterinarian, claiming that it was possibly one of the insects causing her skin problem. She brought a small, plastic toilet tissue container to OVAH, claiming that one of the insects was inside the container. No insects were found inside the container. She offered to collect more samples for investigation by the Entomology Section of the Department of Veterinary Tropical Diseases at Onderstepoort, but never submitted further samples.

She had made use of various topical treatments for both herself and her cats, including dusting powders, disinfectants, anti-fungal shampoos, anti-bacterial shampoos, fipronil spray (FRONTLINE SPRAY, Merial), fipronil topical application (FRONTLINE TOP SPOT FOR CATS, Merial), and various ointments. Her house had also been fumigated on more than one occasion. In a final attempt to get rid of the insects, she had moved to a new house.

Clinical examination of the 3 cats showed them to be in very good bodily condition. Apart from mildly dry skin, no other clinical abnormalities were present, and no macroscopically visible parasites were seen. Haematology, urine analysis, Woods lamp examinations, faecal flotations, multiple skin scrapings and hair plucks, acetate tape impressions, fungal cultures and skin biopsies all failed to reveal any abnormalities.

Based on the history, and the fact that no clinical or laboratory abnormalities

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were present in the cats, it was concluded that the owner possibly suffered from DP.

CASE 2

A single male in his mid-30s was referred to OVAH with his Persian cat, with a complaint that his 3-year-old-female cat had a parasitic infection of the skin that was affecting him. He had recently suffered a traumatic experience when he lost his partner. He had had a skin problem for over 2 years and had been evaluated and treated by a dermatologist without resolution. His skin condition was pruritic, with excoriations on the face and arms. He was convinced that he was being affected by small insects that originated from his cat. He thought that his other cats would eventually be affected by the same insects. In desperation he had shaved all the hair off his body and was treating himself with an insecticidal powder. The cat had been seen by a number of other veterinarians before referral to OVAH, and had recently been treated for dermatophytosis without success. Previous dermatological evaluation had included multiple skin scrapings, hair plucks and skin biopsies.

At presentation the owner brought in a sample bottle that he believed contained parasites and their eggs that he had collected from the cat. According to him, the parasites only emerged at night and made a specific noise that was loud enough to awaken him. No parasites could be identified in the bottle submitted. He had made use of various topical treatments in order to rid himself and the cat of the infestation. The owner's house had been fumigated on numerous occasions without any apparent success.

On clinical examination the cat was thin and had a mildly dry skin. No macroscopic skin lesions were evident. Urine and faecal analyses, Woods lamp examinations, multiple skin scrapings, hair plucks, fungal cultures and FIV/FeLV assay failed to reveal any abnormalities. An unrelated finding was a chicken bone lodged in the caudal oro-pharynx. Haematology showed band neutrophilia, attributed to the foreign body. The cat died under anaesthesia while an attempt was made to remove the foreign body.

Based on the history, and the fact that no dermatological abnormalities were present in the cat, it was concluded that the owner possibly suffered from DP.

DISCUSSION

We believe that the cases presented here share some of the typical characteristics of DP.

Prototypical patients are middle-aged single women who may have undergone

a traumatic experience^{2,10}, although men can also be affected¹¹. It is also frequently encountered in younger patients (in their 20s and 30s)⁵. Patients are often reported as having consulted several physicians and may have lost faith in the medical profession, since no satisfactory diagnosis is ever made^{2,10,11}. Referral to a psychiatrist is almost always rejected, and it is often very difficult to convince patients to take neuroleptic drugs^{5,11}. Both owners in this report complained that none of the previous veterinarians or the dermatologists whom they had consulted could make a diagnosis. The first owner was also upset that one of the dermatologists suggested that she should take an antidepressant. The authors were unable to contact these dermatologists, as the owners never disclosed their names.

The typical history often describes numerous attempts at eradicating the infestation. These could include taking medication, applying topical treatments, using pesticides, making use of exterminators, discarding clothing and possessions and even relocating^{2,3,6}. In this report, both owners had gone to great lengths to rid themselves, their cats and their environments of what they perceived to be parasitic infestations.

In a study of 94 DP patients, most patients complained of itching and/or a tickling sensation⁷. In order to rid themselves of the so-called parasites, patients often scratch, pick and wash frequently or use caustic agents on their skin, almost invariably leading to traumatic skin lesions^{2,4,5}. The cats in this report were perfectly healthy, but both clients had lesions either on their faces or arms, which could have been self-induced.

Patients are often able to give detailed descriptions of the parasites⁷. The insects are usually described as being black or white^{4,7}. In a study of DP patients, 2 patients reported auditory sensations. Both owners in this report described the so-called parasites and their activities in detail, including noises made by the insects.

Another common feature is the 'match box sign'^{1-3,5,11}, where patients collect 'samples' in various containers and present them for identification. Both clients in this report presented 'samples' that yielded no parasites.

An interesting feature of DP is the occasional sharing of the delusions by family members^{1,3,7}. This is referred to as '*folie a deux*' or *craziness for two*, and occurs where patients convince another member of the family to share the delusion. Although the cats in the present report could not confirm the delusions, the owners involved their cats in their own situations.

Although DP is a psychiatric disorder, patients can consult a physician, dermatologist, veterinarian or entomologist⁸. The approach to the owner with DP requires patience and tact¹¹. Guidelines for interaction with the client would be useful in veterinary practice. It is important to build a trusting relationship with the client. Useful guidelines include: 1) listen patiently, 2) acknowledge that the problem is real, but do not deny or confirm what the client believes to be the cause of the problem, 3) be empathetic about the suffering experienced by the client and 4) examine all samples brought for investigation². It is important to rule out genuine skin problems, especially zoonotic skin diseases, as well as the possibility of a ectoparasitic infestation. Entomologists can be consulted to help rule out environmental parasites^{2,6}.

A thorough evaluation of the veterinary patient is required to rule out the presence of parasites and skin conditions. Once a true infestation has been ruled out, and the veterinarian suspects a case of DP, it is advisable that the owner is referred to a dermatologist who is familiar with the condition. It is suggested that dermatologists might successfully treat the condition without referral to a psychiatrist, as DP patients often refuse such a referral⁸. In true cases of DP it might even be harmful to tell patients that no causative organisms were found, as illustrated by the attempted murder of a family doctor in one report¹. It is of the utmost importance that the veterinarian uses tact when referring clients to members of the medical profession¹¹.

The first client in this study was consulted as to whether she would be willing to be referred to a dermatologist associated with the University of Pretoria. She indicated that she would appreciate such a referral, as neither of the dermatologists consulted by her was prepared to take skin biopsies of her lesions. However, various attempts on our part to set up such a referral failed, as our client did not return our phone calls and never responded to messages left with her answering service. With the second owner, contact was lost, as he did not return any phone calls and failed to collect the ashes of his cat. Attempts to contact him by mail were also unsuccessful as the letters were returned unopened.

It is possible that both owners had lost faith in a medical professional once again, and may be seeking advice from yet another veterinarian or dermatologist.

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