Association of Avian Veterinarians Australasian Committee Ltd. Annual Conference 2016 pp 17-19

# **Human Delusional Infestation**

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## Introduction

Delusional infestation, also known as delusional parasitosis or Ekbom syndrome, is a psychiatric condition in which the human patient believes that they are infested with parasites or inanimate objects. These delusions can be shared by other people or can be directed at individuals incapable of sharing this delusion, such as children, pets or disabled people.

At this practice, at least three cases of delusional infestation have been seen in the last six years, which makes it an uncommon but significant diagnosis. There are a number of complexities surrounding the handling of these cases, which involve both the client and the patient's welfare.

# The Disease

Delusional infestation was first described over 200 years ago (Franca et al., 2013). Technically defined as a monosymptomatic delusional psychosis, this disease is generally over-represented in females. There is a bimodal distribution, with the first peak in patients greater than 50 years of age, and an earlier peak of patients in their 20s and 30s. The younger the patient, the more even the gender representation (Wong and Koo, 2003). In up to 15% of cases, the delusions can be shared with other individuals, although secondary cases may respond to treatment of the index case alone.

Delusional infestation by proxy is a presentation of the disease in which the affected individual believes that pets, children or disabled individuals are infested. In a subgroup of this category (double delusional infestation), the individual believes that BOTH the third party (pet etc) and themselves are infested (Rishniw et al 2013). Delusional infestation has been reported as an occupational hazard of healthcare workers and entomologists, and can be iatrogenic (Freudenmann and Lepping, 2009). Patients often have an obsession with small objects and present things such as dirt, threads and general debris, claiming that these are evidence of parasites. This is called 'matchbox' or 'specimen' sign and is a characteristic of the disease (Freudenmann and Lepping, 2009). This belief is maintained despite evidence to the contrary, although the imagined causal parasites often shift over time (Rishniw et al., 2014; Freudenmann and Lepping, 2009). Approximately 40% of cases are due to primary psychosis, with the remainder including formication (abnormal skin sensation but not related to a delusion of parasites); global psychiatric disease (not simply monosymptomatic); substance abuse; and actual parasite infestation. Some rare nutritional deficits or neurological syndromes can present similarly (Wong and Koo, 2003).

Welfare issues for the human patient include self-trauma, as the patient attempts to ease the perceived itching, as well as toxicosis from self-treatment of antiparasiticides. In some cases, attempts to 'decontaminate' the environment can lead to fire, or caustic burns. The psychological detriment to the afflicted individual is considerable and secondary depression can occur (Freudenmann and Lepping, 2009).

Human dermatologists not uncommonly end up treating these patients, as the patients are frequently resistant to seeking psychiatric assistance. Sufferers of delusional infestation often become distrusting of doctors, as they can feel that their pathology (of active infestation) is being ignored. Anti-psychotic agents are the treatment of choice. The average duration of illness has been reported as 3 years, although up to 35 years has been documented (Freudenmann and Lepping, 2009).

# **Veterinary Presentation**

The first and most obvious concern when a client presents with a complaint of infestation is to ascertain whether there is a true infestation. Even if there is a high index of suspicion of delusional infestation, it is important to always assume that there may be parasitism and to do diagnostic testing (physical examination, skin scrapes, sticky tape smears, faecal smears and floatation etc) to thoroughly exclude current parasitic disease. In many cases, the client has already treated themselves or their pets with anti-parasiticides, so the actual initial presence of parasites can be impossible to determine. It is possible for clients to present to veterinarians **without** pets, assuming that veterinarians are better equipped to diagnose zoonotic infestations than human doctors. These presentations are often combined with a 'specimen' that is supposed to confirm the diagnosis, but is actually debris or non-diagnostic.

#### **Quandries for the Veterinarian**

As veterinarians, there is no primary responsibility for human care. The client is **not** the patient, and the 'do no harm' oath presumably applies only to the animal presented and not to the client. However, particularly with delusional infestation, veterinary actions such as the prescription of anti-parasitic medications can worsen the problem for the client, and perhaps delay their acceptance of medical treatment. Affected clients are often disenfranchised with the medical profession, and may develop trusting relationships with their veterinarians, leading to some perceived responsibility of care on the part of the treating practice.

In the absence of confirming infestation, there is a temptation for the veterinarian to prescribe different or stronger anti-parasiticides 'just in case' they are missing the diagnosis. While perceived as a benign option, this will actually serve to further cement the client's perception of infestation, possibly worsening the suffering of the client. In human medicine, dermatologists are expressly advised against trial treatment with anti-parasiticides (Freudmann and Lepping, 2009).

Human doctors are also advised to be very careful and specific with communication, being certain to empathise with their patients **without** using language that supports the presence of infestation. Freudmann and Lepping (2009) and Rishniw et al., (2014) supply several useful phrases that may help to develop rapport with patients without 'buying in' to their delusion. Rapport is necessary in human medicine to try to convince the client to begin medication. The veterinarian, however, walks a tightrope between wanting rapport to try to encourage the client to seek assistance for themselves, and trying not to reinforce the perception of infestation. Unfortunately, the more support and acceptance that a client receives in their delusion, the more often they are likely to re-present to the veterinary practice.

As in human medicine, there is an ethical dilemma in prescribing medications for veterinary patients that are unnecessary. Medications may have unexpected side effects. Some anti-parasiticides can cause bone marrow suppression, gastrointestinal signs and even death when given at toxic levels. When the veterinarian refuses to unnecessarily medicate their patient, the client with delusional infestation can become distressed or even aggressive (Rishniw et al., 2014).

There is also an ethical dilemma in charging somebody with mental illness for consultations/procedures that are unnecessary. In some instances, the clients receive some comfort from a veterinary visit, even if it doesn't result in medication of their pet. However, it would be easy for this intent to be perceived as opportunistic and exploitative by lay people.

Veterinary legislative responsibilities in this area are poorly defined, and there is no real power for the veterinarian to ask to speak with the client's doctor. As veterinarians have no prescribed ability to diagnose disease in humans, it is also an ethically fraught in which to become involved. However, veterinarians have a responsibility of care for their patients, and they can report mis-treatment to appropriate organisations, such as the RSPCA. Mistreatment could include inappropriate or repeated medication.

Another, rarely discussed feature of the effect of this disease is the emotional toll that these clients exert on veterinary staff. These clients are often very distressed, and make multiple phone calls and visits to the practice. Given their psychosis, it is impossible to sway them from their infestation belief, and frontline veterinary staff often deal with complaints of not being taken seriously, anger, frustration, and genuine distress, which can cause secondary trauma.

#### Cases

This practice has had three cases of suspected delusional infestation over the past six years. All cases have involved birds (specifically a Rainbow Lorikeet; some cockatiels and some budgerigars). In two of the three cases, the client was extremely distressed at our negative diagnosis, and embarked on a serial decontamination protocol to eliminate the causative parasite. Interestingly, and differing from the literature, two of the three cases seen as this practice involve men.

## Conclusion

Much like Munchausen by proxy and other psychological ailments that can involve pets, delusional infestation is a complex psychological disturbance. Veterinary staff can find themselves in an ethically gray situation, with little legislative framework to guide decision making.

There is no physical condition to 'fix', so the outcome of client presentation must be resolved as to the ethics and practice protocols specific to each sit-

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Rishniw M, Lepping P and Freudenmann, RW (2014). Delusional infestation by proxy - What should veterinarians do? The Canadian Veterinary Journal, 55, 887–891.

Wong JW, Koo JY. (2013). Delusions of Parasitosis. Indian Journal of Dermatology. 58, 49-52. uation. The approach in this practice has been to try to 'drive' the client back to their GP or other medical practitioners, but this is difficult as people with delusional infestation are typically very suspicious of medical staff, and refuse to believe that they have a psychological ailment.

Medically, unless a mental health diagnosis is considered, these cases can be frustrating to manage, as the clinician cannot 'fix' a condition in a pet that does not exist. It is also important to be aware that 'trial treating' for parasites can cause harm to the client, by providing inferential evidence that there is an infestation that has not yet been discovered.

Given the potential over-representation among avian and exotic clients, it is an important differential diagnosis to consider for the avian and exotic practitioner.

# **Further Reading**

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