

# Unusual Presentations of Delusional Parasitosis

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## Introduction

Delusional parasitosis is an interesting phenomenon in which a person firmly believes that he/she is infested with parasites on inadequate grounds to affirm the bizarre claim. This phenomenon is also known as Ekbom syndrome (Vázquez et al., 2007). In the psychopathology, patients' experience has been described as a delusion or an over-valued idea and also as a form of tactile hallucinatory state (Sims, 1995). Having this kind of delusions or somatic hallucinations are extremely troublesome to the patient which may ultimately lead to injuries to the skin, subcutaneous tissues and even to the eyes as the patient attempts to remove the "parasites / insects" vigorously and vehemently by scratching continuously without any success.

This condition is more often seen in patients over 50 years of age (Dunn et al., 2007). Among these patients there is a female predominance with a 2:1 female: male sex ratio. But there is an equal ratio in patients younger than 50 years (Dunn et al., 2007; Lyell, 1983). Men tend to present at an early age (Dunn et al., 2007).

Delusional parasitosis could be either primary or secondary to other non organic or organic conditions (Dunn et al., 2007). Primary delusional parasitosis is classified as a somatic subtype of delusional disorder in Diagnostic & Statistical manual of mental disorders, revision IV (DSM-IV) (Diagnostic and statistical manual of mental disorder, 1994) and may be classified in the category of persistent delusional disorders in International Classification of Diseases, 10<sup>th</sup> revision (ICD-10, 1992). The secondary non organic causes include psychiatric conditions like schizophrenia and affective disorders (Lepping and Freudenmann, 2007; Bhatia et al., 2000).

Other differential diagnoses include anxiety and obsessive compulsive disorder (Dunn et al., 2007). Diabetes mellitus, dementia, hyperthyroidism, vitamin B<sub>12</sub> & Folate deficiency and stroke are among the secondary organic causes (Dunn et al., 2007; Lepping and Freudenmann, 2007; Nagaratnam and O'Neile, 2000; Bhatia et al., 2000; Lyell, 1983; Pope, 1970). Cases of delusional parasitosis and similar experiences have been reported among patients who abuse illicit drugs such as cocaine & alcohol (Dunn et al., 2007; Lepping and Freudenmann, 2007; Elpern, 1988; Siegel, 1978). Association between delusional parasitosis and medically used drugs such as amantadine in parkinsonism therapy has also been reported (Swick and Walling, 2005). Dopamine agonists, methylphenidate, pemoline, ciprofloxacin and many other medications have also been described in the causation of symptoms of delusional parasitosis (Flann et al., 2010; Dunn et al., 2007; Steinert and Studemund, 2006).

Cutaneous presentations of delusional parasitosis are usually reported (Dunn et al., 2007; Kurupparachchi and Williams, 2003; Slaughter et al., 1998). Other unusual presentations such as ophthalmic (Sherman et al., 1998), oral cavity (Maeda et al., 1998), intestinal (Ford et al., 2001) are also reported. Delusional parasitosis of body orifices such as ears and nostrils has been reported in India (Srinivasan et al., 1993). In the Sri Lankan context cutaneous manifestations of delusional parasitosis have been reported previously (Kurupparachchi and Williams, 2003).

We report the following case histories to highlight unusual presentations of delusional parasitosis.

## Case 1

A male in his late sixties presented to an ophthalmologist with self-inflicted injuries to his right eye, claiming that his right eye is infested with worms. This was an unpleasant feeling which bothered him and he has damaged the eye in an attempt to remove these worms. He told his family members about these worms but they didn't believe it. Then he tried to collect these worms to a bottle to prove his bizarre claim. He was thoroughly examined and investigated by the ophthalmologist and found to have nothing abnormal in his eyes apart from self-inflicted injuries. He was treated for it and referred to a psychiatrist.

In the psychiatric evaluation he had a firm conviction that thin red coloured thread like worms were crawling in his right eye for about two months. During the interview he was also found to have low mood, lack of energy, lack of enjoyment and insomnia for a period of six months suggestive of a depressive disorder.

His symptoms resolved over a period of three months on treating with sertraline combined with low dose risperidone.

## Case 2

A woman in her late forties presented with a complaint of worms crawling inside her ears for 3 - 4 months duration. She claimed that these worms were blackish in colour with white heads and had the unshakable belief that they were emerging from her ears. It was a very distressing experience. She also started collecting non-existent small six legged blackish insects from her finger tips and nail beds. She used to crush them and collect them into polythene bags. In addition she was also extremely suspicious believing others were trying to harm her. She was also hearing voices of several people discussing about her referring to her in third person and feeling as she was under the influence of an external agency. She was also withdrawn from the society. The diagnosis of schizophrenia was made according to ICD 10 criteria.

She was commenced on a course of haloperidol initially. Her paranoid symptoms and auditory hallucinations subsided with haloperidol.

However delusional belief of parasitosis was persisting. After cross tapering her medication to olanzapine she made a good recovery over a period of two months.

## Case 3

A man in his late fifties believed that he has been passing insects from his anus for six months duration. He was extremely distressed about this and sought medical care. He was thoroughly examined and investigated with stool full report, stool culture and colonoscopy by his physician before referring to a psychiatrist as parasitic infections of intestines are common in our part of the world. All the investigations were normal. He strongly believed that his intestines were filled with these tiny black headed insects and his intestines were decaying due to this infestation. He was also feeling sad, miserable and had lack of interest, lack of energy and lack of enjoyment for the same period suggestive of a depressive disorder.

He made a good recovery with a combination of mirtazapine and a small dose of risperidone.

In all cases basic investigations including full blood count, thyroid function tests, serum electrolytes, serum creatinine, blood picture and blood sugar levels were normal.

## Discussion

Cutaneous manifestation is the usual presentation of delusional parasitosis. However unusual cases were also reported such as ophthalmic, oral cavity, intestinal and auricular presentations (Sherman et al., 1998; Maeda et al., 1998; Ford et al., 2001; Srinivasan et al., 1993).

Our first case highlights ophthalmic involvement which is an unusual presentation of delusional parasitosis secondary to a depressive illness. He made a good recovery with a combination of sertraline and risperidone. Our second case highlights a patient with schizophrenia who has another unusual form of delusion. She claimed that worms are crawling from her ears which may be reported as part of psychopathology of schizophrenia. The third case history shows another unusual presentation of

delusion of parasitosis. It is in the form of intestinal delusional parasitosis in a patient with severe depressive disorder.

It is interesting to note that delusional parasitosis of body orifices predominantly involving ear, nostrils, mouth, anus and urethra has been reported in India. It has been suggested that the unusual presentation could be attributed to cultural influence and belief systems (Srinivasan et al., 1993).

Pimozide has been described as a first line drug for delusional parasitosis in the medical literature, but it is no longer the treatment of choice (Lepping and Freudenmann, 2007) as there is increased concern regarding its side effect profile specially in elderly. Hence our patients were treated with risperidone and olanzapine. By using modern antipsychotics like risperidone, olanzapine or amisulpride in age appropriate doses, remission is achievable in patients with delusional parasitosis (Lepping and Freudenmann, 2007; De Léon et al., 1997).

Patients with delusional parasitosis usually present to general practitioners and dermatologists for treatments and the diagnosis is often missed by many. It is important to note that even the cutaneous manifestation of delusional parasitosis is missed. We need to emphasize the importance of improving the knowledge among the medical practitioners of this seemingly rare disorder to minimize the delay in seeking treatment. It is important to diagnose the condition early in order to minimize complications such as injuries to skin and important organs such as the eyes, which may even result in physical handicap in addition to the psychological trauma. Increasing the awareness about delusional parasitosis among dermatologists, general practitioners, ophthalmologists and other medical professionals is of paramount importance as these patients may first approach them, and the management of the condition often involves liaison among such professionals. It is also important to do more research work on this area to understand the aetiology including contribution of cultural factors. It is noteworthy that all of our cases had secondary delusional parasitosis and responded reasonably well to medication.

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