

Case Report

A Case of Delusional Parasitosis

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Abstract

Delusional parasitosis is a rare psychotic illness characterized by an unshaken false belief of having being infested by a parasite when there is no evidence of infestation. It is also called Ekbom syndrome, named after the Swedish neurologist, Karl Ekbom, who did significant work on this condition.

Delusional parasitosis can be categorized into three distinct categories namely; primary, secondary, or organic. Primary delusional parasitosis comprises of a single belief of being infested by a parasite. Secondary delusional parasitosis occurs in the background of other mental disorders like depression, schizophrenia, and dementia. Organic delusional parasitosis can occur in the setting of some common organic disorders such as hypothyroidism, cerebrovascular disease, allergies, and cocaine intoxication. The patient described in this case report is a 53-year-old Caucasian male with delusional parasitosis in the context of chronic mental illness treated with a combination of risperidone and Depakote with resolution of symptoms.

Introduction

Delusions of parasitosis, also known as Ekbom syndrome, is a rare psychiatric condition that is characterized by a fixed, false belief of being infested by a parasite [1,2]. Due to the paucity of publications, the prevalence of delusional parasitosis is unknown. Available studies show that delusional parasitosis is more common in white patients and its incidence is higher among female with a ratio of 2:1. However, when stratified by age, there is no gender difference in the incidence below the age of 50 years [3]. While delusional parasitosis is usually described in middle-aged and older women, the condition has been reported in patients of all age groups [4]. The etiology of delusional parasitosis is unknown.

The individual suffering from this condition typically reports parasites in or on the skin, around or located inside body openings, in the

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Citation: Kodjo K, Ogunsakin O, Oyelakin A, Khan M, Olaniyi O, et al. (2019) A Case of Delusional Parasitosis. J Psychiatry Depress Anxiety 5: 024.

Received: July 04, 2019; **Accepted:** July 15, 2019; **Published:** July 22, 2019

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internal organs namely stomach or bowels, and this is usually associated with the belief that the parasites are invading his home, clothing, and surroundings [5]. Patients may have a sensation of parasites crawling or burrowing into their skin. Individuals with this condition often scratch themselves to the point of skin damage or self-mutilation. The examination may not reveal lesions but sometimes reveal scratch marks, minor ulcers or erosions [6]. Often, discrete bruises, scars, or ulcers are frequently produced by patients trying to extract the offending parasite(s). Individuals may present with an exhibit of skin or clothing debris wrapped in plastic or tape or matchboxes as evidence of the parasitic infestation. Usually, these do not typically contain the parasites. This phenomenon is called the matchbox sign [7].

The patient must be adequately evaluated about their symptoms and beliefs about the causative factors and likely etiology. The diagnosis and management of delusions of parasitosis can be tasking because many patients may resist the idea that their condition may be psychiatric and may refuse referrals for psychiatric care [8].

Delusional parasitosis must not have an external cause such as, skin diseases like scabies as the presence of an external cause excludes the condition. In essence, other causes of itching or pruritus must be adequately evaluated and ruled out [9].

In this report, we describe the case of a 53-year-old Caucasian male with delusional parasitosis in the context of chronic mental illness.

Case Summary

A.H is a 53-year-old Caucasian male, unemployed, domiciled in low-income housing with a history of chronic mental illness and multiple hospitalizations who walked into the psychiatry emergency room and complaining of feeling odd and not feeling safe at home since 3 days prior to admission. He endorsed tactile hallucinations, saying he feels sensation of insects crawling into his genitals, his scalp and hair. He described different types of insects such as roaches, fleas, silverfish bugs crawling all over his body. He also reported that they were on the stovetop, kitchen sink and in bubbles that climb northwards when he is taking a shower. He also expressed seeing them everywhere. Patient complained of poor sleep and suicidal ideation, which started 3 days prior to presentation. He reported that he had been suffering from insect infestation, which started again after moving into his current house, 3 years prior to presentation. He reported that he had changed houses and moved about 5 times to get rid of the insects in past 10 years. Reportedly, he used chemicals to slow them down and attempted to exterminate them multiple times. He also expressed paranoid delusion, stating that his next-door neighbor was controlling these insects and intentionally sending the insects to his house. He stated that these insects have ruined his life and he reported that he had been depressed because of their presence. At the time of presentation, he was having suicidal thoughts with the intention of jumping in front of the train. He also endorsed worsening depressed mood, poor sleep with associated low energy and concentration

levels, of three days duration but denied anhedonia, poor appetite or any guilty feelings. His thought process was noted to be concrete and disorganized. He exhibited social isolation, difficulties in executive functioning, his level of functioning was impaired in his daily routine work, interpersonal relations and self-care. He denied auditory hallucination or persecutory delusions. He reported current history of cannabis and benzodiazepine use; and a remote history of using cocaine, oxycodone and methadone more than 2 years ago. Reportedly he smokes 2-3 blunts of Cannabis per day, last used 2 days prior to admission. Patient reported that he was diagnosed with Schizophrenia 10 years ago with multiple previous admissions. His last inpatient psychiatric hospitalization three years prior to this current episode was for a similar presentation, and he was hospitalized for 5 days. He reported being noncompliant with aftercare. He reported a traumatic experience of physical abuse by his family and a history of witnessing sexual abuse of one of his sisters by his father during childhood. His laboratory results were not significant except urine toxicology, which was positive for cannabinoids and benzodiazepines. Head computed tomography was essentially normal. Thorough physical examination was unrevealing of insect infestation. Patient was admitted to inpatient and started on Risperidone 2 mg per oral (PO) twice daily, Divalproex 750 mg PO twice daily and Trazodone 50 mg PO at bedtime. He responded well with resolution of his symptoms by day 10th of hospitalization.

Discussion

Delusional parasitosis is a somatic type of delusion, usually mono-symptomatic, in which the patients are convinced they are being infested with animal parasites while no objective evidence exists to support this belief. The complaint is usually about skin infestation but cases of gastrointestinal involvement have been reported [7]. Drug-induced tactile hallucinations should be considered in patients suspected to have delusional parasitosis. Although recreational drugs such as cocaine, amphetamines, and narcotics are well known to induce tactile hallucinations, studies have shown that the most common group of medications to induce tactile hallucinations are anti-parkinsonian agents, followed by antidepressants, prescription stimulants, anti-hypertensives (propranolol), and antiepileptics [8,10]. Most recent literature reviews, although limited suggests that certain medications that alter neurotransmitters, especially dopamine and, less convincingly, norepinephrine and serotonin, can be associated with tactile hallucinations [8,11]. There is no laboratory test for diagnosing delusional parasitosis, but some lab tests may help to delineate other conditions that may mimic it. It is imperative to perform the following investigations to exclude other conditions.

1. Perform a microscopic examination of skin and hair to exclude lice or scabietic infestation.
2. Exclude vitamin deficiencies that may potentially lead to neurological deficiencies.
3. Perform tests to rule out other causes of pruritus like anemia, liver or kidney disease. Such tests include complete blood count; liver function tests, thyroid function tests, serum electrolytes, glucose, iron panel, folate, urine analysis, and toxicology.

A multidisciplinary approach may be needed involving psychiatrists, dermatologist and other disciplines [8]. Administration of psychotropic agents has been shown to help with the disease. Treatments commonly employed are the second generation or atypical antipsychotics such as Risperidone, Olanzapine or Amisulpride [12-14].

In the absence of controlled trials there is limited evidence that antipsychotics are effective in primary Delusional parasitosis. Rigorous studies are needed to evaluate their effectiveness [9].

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