

Case report

Reaching a rare diagnosis of delusional parasitosis

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Article info

Received : 10 Mar 2021
Accepted : 12 May 2021
Number of tabs : 00
Number of figs : 00
Number of refs : 10

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Summary

Delusional parasitosis have been found to be a rarely diagnosed disorder. It may be underestimated in the psychiatric assessment, as well, in literatures because patients with delusional infestation do not believe that their symptoms are delusional and are reluctant to see a psychiatrist. Nevertheless, delusional infestation can be distinguished from other psychiatric disorders if given proper attention in history, assessment and evaluation to rule out other mimics. Our aim in this article was to describe and establish a case of delusional parasitosis presented to our NIMH inpatient.

Bang J Psychiatry 2021;35(1): 15-16

Introduction

Delusions of parasitosis, also known as delusional infestation, formication, ekbom syndrome is a rare psychiatric disorder classified in the DSM V as a delusional disorder, somatic subtype.^{1,2} The diagnosis is a delusional disorder where the patient experiences a fixed, firm belief that they had an infection with a parasite, worms, mites, bacteria, fungus other types of living organisms or in animate object(s).^{1,2} Patients remained resistant to reason with to alter their thinking. The initial literatures to describe the disease appeared in 1948, two forms of delusions of parasitosis were described, primary and secondary. The primary form was mentioned as psychiatric disorder where the delusions of parasitic infection are the only symptom of presentation. Whereas the secondary variety been mentioned as the delusions of parasitosis that occurred as part of or alongside another psychiatric disorder such as schizophrenia or secondary to drug abuse or organic / medical illness.³ As with all delusions, this belief could not be corrected by logical argument or evidence to the contrary. Nevertheless, affected individuals remained quite functional. However, these symptoms might get severe enough to interfere with usual activities.⁴ Here in, we described a case of delusional parasitosis in a patient with psychiatric co morbidities.

Case summary

A 31 years old lady, homemaker, lived with her in-laws, and having eight years old kid, was admitted involuntarily by her husband in the inpatient department of National Institute of Mental Health (NIMH) on 17 January 2021. Her mother and

husband accompanied her on account of recent belief of worms crawling under the skin of scalp and coming out of bodily orifices. Upon arrival at the hospital, she described worms as small whitish and numerous; those crawled under her skin and poured from all the orifices. The worms were also infesting her surroundings. Moreover, she admitted of having chronic low grade depression without any prominent disturbance in sleep, any guilt, feeling worthless, ideas, intent or plan to harm self or others. She mentioned the symptoms of being infestation started months ago, used sharp objects to poke the skin to get rid of the worms. She was always anxious about the worms, so that, she could not concentrate on household works. The patient denied smoking, drinking, or using any illicit drugs. She had no childhood incidents, peri-natal history of illness, medical conditions or psychiatric issues or any significant family history. During the interview, she had poor eye contact and talked in a slowed rate with pauses. She was well groomed with help from her mother. Her thinking and behavior reflected that she had paranoid ideation about worms. However, detail examination failed to reveal any other positive symptoms of psychosis (i.e., hallucination and delusions other than that of related to worms). The patient had limited insight into her mental illness. The relevant tests were performed to rule out the other causes of pruritus like anemia, liver or kidney disease (i.e., tests included complete blood count, liver function tests, thyroid function tests, serum electrolytes, glucose, iron panel, folate, urine analysis and toxicology screen). No feature of actual seizure was identified as well normal electro encephalography (EEG) and brain imaging.

Discussion

Delusional disorder is distinguished from schizophrenia by the presence of delusions without any of the other symptoms of psychosis (i.e., hallucinations, disorganized speech, or disorganized behavior). Delusional disorder is characterized in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM 5) as the presence of one or more delusions for a month or longer in a person who, except for the delusions and their behavioral ramifications, does not appear odd and is not functionally impaired.^{1,2} No prominent hallucinations (only themes related to delusions, e.g. tactile hallucinations may be present) and odd behaviors related to the delusional theme may be present. Other psychotic or marked mood symptoms are absent. Due to the paucity of publications, the prevalence of delusional parasitosis was unknown. Available studies showed that, delusional parasitosis was more common in white patients and its incidence was higher among female with a ratio of 2:1.⁵ However, when stratified by age, there was no gender difference in the incidence below the age of 50 years.

The etiology of delusional parasitosis is unknown.⁵ True parasitosis can cause systemic and cutaneous findings, which may be associated with blood eosinophilia (i.e., high eosinophil count). Exposure history, dermatologic evaluation and laboratory testing can be used to determine infestation. Delusional parasitosis is a somatic type of delusion. The complaint is usually about skin infestation, but cases of visceral involvement have been reported.⁶ 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, some commonly used medication also associated, for example beta blockers, antidepressant etc.⁷ Most recent literature, although limited, suggests that, certain medications alter neurotransmitters, especially dopamine and less convincingly, norepinephrine and serotonin, can be associated with tactile hallucinations.

There is no laboratory test for diagnosing delusional parasitosis, but some lab tests may help to delineate other conditions that may mimic it.⁸ It is imperative to perform the following investigations to exclude other conditions. Based on the above discussions, we performed examination of skin and hair to exclude infestations, such as lice or scabietic infestation. Treatments commonly employed were the second generation or atypical antipsychotics such as risperidone, olanzapine or

amisulpride. In the absence of controlled trials, there was limited evidence that, antipsychotics were effective in primary delusional parasitosis. Rigorous studies are needed to evaluate their effectiveness.^{9,10}

Conclusion

People with delusional parasitosis often reject the psychiatric diagnosis and few willingly undergo treatment, despite demonstrable efficacy, making the condition difficult to manage. Reassuring the individual with delusional parasitosis that there is no evidence of infestation is usually ineffective, as the patient may reject that. A multidisciplinary approach may be needed involving psychiatrists, dermatologist and other disciplines. Administration of psychotropic agents has been shown to help with the disease.

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