Delusional Infestation: A Case Report

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Introduction

Delusional infestation is a psychocutaneous syndrome associated with self-injurious behaviors in which patients exhibit fixed, false beliefs (delusions) that they are infected with parasites, worms, mites, bacteria, fungus or other living organisms. Attempting to reason with the patient or provide a logical explanation of their symptoms is often unsuccessful, as this disorder is somatic in nature and many of those affected are still able to function.[i]

Research into delusional infestation is minimal, primarily due to lack of verified diagnosis given the nature of the condition. In this case study, we examine the case of a female patient who meets the criteria for diagnosis and exhibits many of the classical signs of delusional infestation, but is not formally diagnosed due to noncompliance.

Background

Delusional Infestation is divided into primary and secondary forms, with primary being a psychiatric disorder manifested solely by the belief of infestation. In secondary delusional infestation, the belief that they are infested occurs due to another disorder, including substance abuse or other medical illness.[ii]

Morgellons syndrome is a related diagnosis with similar manifestations as delusional infestation but differs slightly in that patients also believe inanimate objects (commonly strings or threads) are also present in their lesions.[iii] A 2012 retrospective study conducted by the Mayo Clinic of 147 diagnosed cases of delusional infestation found the mean age of diagnosis was 57 with a female to male ratio of 2.89:1 and more than half of the patients were married.[iv] The Mayo Clinic also conducted a second retrospective study of 54 patients with diagnosed delusional infestation that were willing participants in psychiatric therapy and found that 74% (40 patients) had a second, co-occurring psychiatric disorder, with depression being the most common followed by anxiety.[v]

Patients will often present with complaints of pruritus and excoriations from scratching that started insidiously and have been present for at least six months. Oftentimes they will also have a prolonged history of prior negative workups by other physicians and specialists and may have been prescribed multiple courses of dermatologic or anti-infective treatments. Additionally, they will bring in specimens that they have picked off their body, clothing or bedding that they wish to have examined.[ix] Many will also have taken their pets to veterinarians or have had exterminators treat their houses multiple times in an effort to definitively treat the cause of their symptoms. Despite the majority of patients having sought out multiple avenues of workup and treatment, most patients have intact mental function and otherwise normal behavior.[x] They also generally do not have a history of prior psychiatric diagnoses and only 2% of patients have parasitic infections that precipitate the development of the disorder.[xi]

Case Summary

61 year old female with HTN and OA presents as a new patient with complaints of diffuse, whole body itching that she states has previously been evaluated by other providers but has not been resolved. She describes feeling things "crawl on [her] skin" and believed she had "grains of sand in [her] eyes". Her symptoms had been persistent for the last eight months and she is eager to find a resolution as she has been isolating herself from others due to her belief she is infectious. She has also brought a small plastic bag of "debris" she has collected from her bedsheets. The patient's former PCP had prescribed Permethrin, which had not improved the patient's symptoms. Physical exam showed multiple open lesions in various stages of healing on her arms, legs and abdomen without any evidence of parasites. During this initial visit, patient perseverated on her belief that she is infected with "parasites" and was visibly agitated and tearful. A referral was sent to dermatology and patient was given topical hydrocortisone.

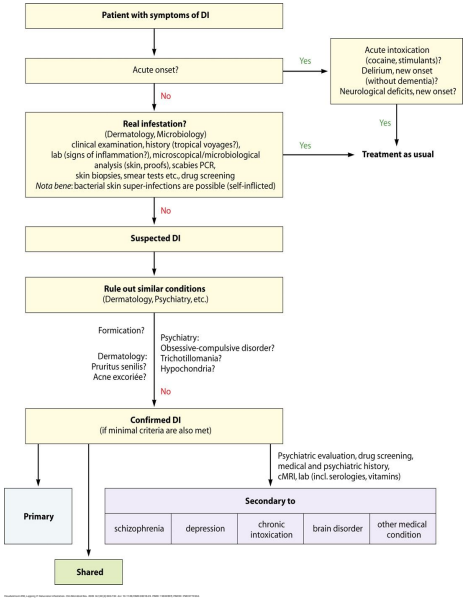
Review of available records revealed the patient was initially seen for her symptoms of itching legs in February 2021. Since that initial presentation, she had been prescribed Kenalog lotion, Permethrin cream, Loratadine, Atarax, Doxycycline and Ivermectin but continued to report symptoms to multiple different providers. She was seen by an Allergist, Otolaryngologist and Dermatologist as well as having her dog examined by a veterinarian. She had hired an exterminator and also had the carpets removed from her house. Workup up to this point had included blood tests and stool studies, all of which were negative and not indicative of any kind of parasitic infestation.

Clinical Course

After the initial visit, she was referred to dermatology at her request and further workup included blood work, shave biopsy, antibody testing and evaluation of debris from her bedsheets. She was prescribed various medications including Ivermectin, Prednisone, Gabapentin, Atarax, sarna lotion, protonix, antihistamines and light therapy – all of which did not improve her symptoms. Two months into renewed workup, the option of psychiatric evaluation was discussed. She agreed to be evaluated and was initially diagnosed with adjustment disorder with mixed depression and anxiety secondary to family issues, but no mention of her somatic symptoms was made. The patient abruptly cancelled all future appointments after two months. Eighteen months after initially presenting, the patient has been seen by four different dermatologists and two specialists. Despite continued recommendation, she continues to decline further psychiatry evaluation and has become increasingly confrontational in message exchanges regarding her ongoing somatic symptoms. She has requested evaluation by an outside dermatologist, which is currently pending.

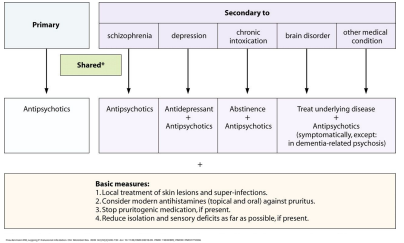
Discussion

The pathogenesis of somatoform disorders like delusional infestation are not well understood. A 2007 report theorized that delusional infestation may be related to decreased functioning of dopamine receptors in the striatum of the brain causing an excess of extracellular dopamine.[vii] This theory has been supported by positive response of patients to first generation antipsychotic dopamine agonists, specifically pimozide. The proposed mechanism of action is that the opioid blockade provided by the medication reduces pruritus and formication.[viii]



Treatment of diagnosed delusional infestation relies heavily on the relationship between the clinician and the patient. Psychiatric evaluation is paramount in fully evaluating the patient's symptoms and ruling out other potential causes of their symptoms including other psychiatric illnesses. As such, patients and their clinicians must have a relationship built on trust and mutual respect, with the primary focus being the well-being of the patient. Pharmacotherapy is the cornerstone of treatment with second generation antipsychotics as the first line agents due to decreased risk of extrapyramidal symptoms. To date, there are no randomized clinical trials that demonstrate the efficacy of second-generation antipsychotics in treating primary delusional infestation.[xii] However, a systematic review of close to 300 patients found response rates upwards of 60% with total treatment length recommended to be at least one year.[xiii, xiv]

This patient meets the DSM 5 criteria for diagnosis with delusional infestation based on the length of symptoms (greater than 1 month), criterion A for schizophrenia has never been met, functioning is not markedly impaired, she has not had any manic or major depressive episodes and the disturbance is not attributable to the physiological effects of a substance or another medical condition and is not better explained by another mental disorder. Individuals experiencing this disorder are notoriously difficult to have thoroughly evaluated from a psychiatric standpoint for full diagnosis due to their delusions regarding their symptoms. For this reason, tactful relationship building between provider and patient is of utmost importance and can be the difference between continued suffering by the patient versus relief.



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