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Exploring delusional parasitosis – a case series of three patients

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ABSTRACT

Delusional parasitosis is a psychiatric condition where individuals believe they are infested with parasites despite lacking medical evidence. This often leads to underestimation within psychiatric settings. Three patients with delusional parasitosis, aged above and below 50, presented with symptoms lasting from 1 to 6 months. Two had consulted specialists before, and one had primary delusional parasitosis while two had secondary due to schizophrenia and depression. Tablet Olanzapine showed partial response in one patient before admission. Tablet Risperidone resulted in complete symptom resolution within 10 days in two patients and within 1 month in one patient. Randomized controlled trials on antipsychotics for delusional parasitosis treatment are lacking. Further research is needed to assess treatment recommendations. Psychiatrists should report cases to provide clinical evidence supporting treatment decisions.

Key words: Delusional parasitosis; Referral; Underestimated; Schizophrenia; Depression; Olanzapine; Resperidone

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INTRODUCTION

Delusional parasitosis is a psychiatric condition wherein individuals strongly believe they harbor parasites or living organisms, despite the absence of medical evidence. It is also recognized as delusional infestation or Ekbom syndrome.[1] This disorder can manifest as primary, unrelated to other conditions, or secondary, occurring alongside psychiatric or organic diseases such as schizophrenia, depression, hypothyroidism, or infections. In some instances, close relatives may share similar delusions, termed folie à deux, observed in 15–25% of cases.[2] The exact cause remains unidentified, although certain theories connect it to alterations in dopamine levels in the brain.[3]

Health-care providers, particularly psychiatrists, encounter challenges in managing this condition due to its realistic symptoms causing distress in patients. This often results in underestimation within psychiatric settings, potentially leading to referrals to various specialists. The absence of randomized controlled trials investigating antipsychotic effects in this disorder complicates therapy selection and patient care.

This case series aims to enhance the understanding of delusional parasitosis through a comprehensive analysis of multiple cases. By thoroughly examining diverse clinical presentations, demographic characteristics, associated factors, and treatment outcomes, our objective is to unravel the complexities of this enigmatic disorder. Through a meticulous review of these cases, our goal is to contribute to ongoing efforts to improve diagnostic accuracy, refine treatment approaches, and ultimately bolster the well-being of individuals grappling with Delusional Parasitosis.

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CASE 1

A 61 years old, Hindu, married male resident of a rural area who was illiterate and farmer by occupation belonging to lower socioeconomic status brought by his family members to psychiatry outpatient department (OPD) for insidious onset and 6-month continuous course of complains of feeling of insects crawling into his genitals, limbs, face, scalp, and hair. He described the insect as multiple, small, black, multi-legged, and looks like spiders. He reported that they were on his bed, kitchen, and washroom. He used to apply kerosene oil and insecticides all over his body and spray in the home to kill those insects. The patient was having scaly and excoriated patches all over his body. He also stated that "my neighbor has done black magic on him and he is controlling these insects because he wanted to kill me so that he can grab all my property." Patient remains suspicious and fearful, and did not go out of the house due to his thought that villagers talk about him and make his fun, his neighbor wanted to kill him. His sleep got disturbed, and sitting alone he used to do muttering to self which was incomprehensible, wandering in house, become irritable and sometimes assaultive when someone asks about his behavior or tries to become intrusive to him. His level of functioning was impaired in his daily routine work, interpersonal relations, and self-care. The patient was tobacco chewer and bidi a smoker since 40 years.

Four months back his family members took him to psychiatry OPD of the government hospital. Initially Tablet Olanzapine 10 mg was advised, and there was some improvement in symptoms. Gradually dose was increased to 20 mg in 1 month but there was no further improvement in the patient's condition so he stopped taking medication.

On mental state examination (MSE)-old looking male, ectomorphic built, continuously itching all over the body, cannot sit still, eye contact was ill-sustained, annoyed, and rapport difficult to establish. Psychomotor activity was increased, productivity was decreased, affect appeared perplexed and incongruent to mood and thought content, circumstantiality present, presence of delusion of persecution, delusion of reference and somatic delusion, third person auditory hallucination. Attention arousable but ill-sustained, impaired judgment, Grade-1 insight. Patient provisionally diagnosed with Paranoid Schizophrenia with Delusional Parasitosis.

The patient was admitted in psychiatry ward, his laboratory results were not significant, head computed tomography was normal, thorough physical examination was unrevealing of insect infestation. Tablet Risperidone 3 mg O.D was started. Dose was gradually increased to 6 mg O.D. He responded well with the resolution of his symptoms by day 10th of hospitalization.

CASE-2

A 36 years old, Hindu married male, resident of a rural area, studied up to class eight, farmer by occupation, and belonging to lower socioeconomic status was referred from Dermatology O.P.D to Psychiatry O.P.D of medical college. The patient was having insidious onset and 3-month continuous complaint feeling of insects crawling and biting inside his body. Patient described that there were multiple small thorny parasites crawling and biting in his mouth, thread-like worm bits and enters inside the skin by making hole and crawls under his skin, mosquito bites and lay eggs inside his body which later becomes adult mosquito in his body and bites him. Patient told that he was having pus discharging sinus in his gums for which he was operated 4 months back by a dentist. After surgery, he was having tingling sensation in his gums for 15 days which was not relieved by medications. Patient started thinking that pus gave rise to insects that crawls and bits in his mouth. Slowly and gradually he developed these thoughts for all over his body.

Patient complained of poor sleep, low mood, loss of interest to surrounding, and suicidal ideations which started 15 days before presentation. He stated that due to these insects, his life has became hell and do not want to live such a bad life.

He had consulted many physicians, dentists, dermatologists in the past 3 months but there was no improvement in his symptoms. He had sold his land, borrowed money from relatives for his treatment, and now the patient was in heavy debt.

On MSE-Young looking male, ectomorphic built, slightly erythematous rashes over face and upper limb, sitting at the edge of the chair in a slumped posture, looking downwards, co-operative during the interview, rapport established with difficulty. Psychomotor activity was decreased, speech productivity was decreased and reaction time was increased, affect appeared depressed and congruent with mood and thought content, thought of the patient revealed helplessness, hopelessness, worthlessness and suicidal ideations, and somatic delusion. Attention arousable but ill-sustained, Grade-3 insight. The patient provisionally diagnosed with delusional parasitosis with severe depression.

Patient was admitted in psychiatry ward, no significant finding was present in physical examination, all relevant blood investigations were normal, head computed tomography was normal. Tablet Olanzapine 10 mg O.D was started and dose was gradually increased to 20 mg O.D., but there was no improvement in his symptoms.

Tablet Olanzapine was stopped and switched to Tablet Risperidone 4 mg O.D. Patient reported some improvement in his symptoms. Dose of Risperidone was gradually increased to 6 mg O.D. Within 15 days of start of Tablet. Risperidone his symptoms was significantly improved. He was discharged on the same dose of Risperidone and when he came for follow-up after 10 days, there was a complete resolution of his symptoms.

CASE-3

A 46 years old, Muslim married male, resident of rural area who was illiterate and farmer by occupation belonging to lower socioeconomic status presented to Psychiatry O.P.D of the medical college with chief complain of feeling of insects crawling under the skin since 1 months which was insidious in onset and continuous course. The patient described the insect as he had seen the insect only once when it was coming out from a pus-filled papule over the right side of his chest. It was thread-like, whitish, and hard. Crawling sensation started first in throat then after 7 days it was also started over the lips, face, and head. Within 20 days, patient had crawling sensation all over his body. The patient had continuous itching all over his body and described his itching was because the insects were biting inside his body and trying to harm him.

The patient was also had complain of passage of semen during sleep for 10 years and low mood, loss of interest, fatiguability, disturbed sleep, guilt feeling for 3 months before onset of crawling sensation. He had consulted a physicians and a dermatologist in the past 1 month but there was no improvement in his symptoms.

On MSE-Old looking male, ectomorphic built, having vitiligo patches over face, hand, and foot. Sitting on chair in a comfortable posture, eye contact made and sustained, cooperative during interview, rapport established. Psychomotor activity was decreased, speech productivity was slightly decreased and reaction time was slightly increased, affect appeared depressed and congruent with mood and thought content, thought of the patient revealed ideas of worry and somatic delusion. Attention arousable but ill-sustained, Grade-2 insight. Patient provisionally diagnosed with Dhat Syndrome with severe depression with delusional parasitosis.

Patient was admitted in psychiatry ward, no significant finding was present on physical examination, relevant blood investigations, and head computed tomography. Tablet Risperidone 4 mg O.D. was started and on day three patient reported some improvement in his symptoms. Dose of Risperidone was gradually increased to 6 mg O.D. Within 10 days of the start of Tablet. Risperidone there was a complete resolution of symptoms.

DISCUSSION

Delusional parasitosis, a psychiatric condition occurring rarely, has shown variable occurrence rates, documented in earlier studies to fluctuate between 1.9 and 27.3 cases/100,000 individuals annually.[4,5] Within this specific case series, three patients diagnosed with delusional parasitosis were observed initially in the psychiatry O.P.D and subsequently admitted to the psychiatry ward of a medical college. While some research suggested a higher occurrence among females compared to males, this gender-based prevalence did not consistently align across all studies.[5,6] Interestingly, in this series, all patients were male, engaged in farming, and belonged to a lower socioeconomic background. The previous studies reported the average age of delusional parasitosis patients to range from 57 to 61.4 years.[6] However, within this case series, only one patient was over 50 years old, while the remaining two were younger. The duration of symptoms observed in delusional parasitosis cases typically ranged from 1 to 6 months. Individuals with DP often seek help from dermatologists or physicians due to the stigma associated with mental health issues and their strong conviction of suffering from a parasitic infestation rather than a psychiatric disorder.[7] Among the three patients in this series, two had sought consultations from various specialists such as physicians, dermatologists, and dentists before visiting the psychiatry O.P.D. One patient received a diagnosis of primary delusional parasitosis, while the other two had secondary delusional parasitosis associated with schizophrenia and depression. Treatment for delusional parasitosis lacks substantial evidence supporting the superiority of any specific antipsychotic agent over others. Pimozide was previously recommended as the first-line treatment, but due to its extrapyramidal and cardiotoxic side effects, newer second-generation antipsychotics such as aripiprazole, olanzapine, quetiapine, and risperidone have gained preference. Studies and reviews have suggested that second-generation antipsychotics offer better safety and tolerability profiles.[8] In this particular case series, two patients had previously been administered Tablet Olanzapine, with one showing no response and the other exhibiting only a partial response. Tablet Risperidone was initiated for all three patients, resulting in complete resolution of symptoms within 10 days for two patients and within 1 month for the third patient. Summary of case series is depicted in Table 1.

Table 1: Summary of case series

Case number	Age	Sex	Occupation	Socioeconimic status	Duration of symptoms of delusional parasitosis (months)	Treatment with other specialists	Psychiatric history before delusional parasitosis	Treatment and outcome
1	61	Male	Farmer	Lower	6	No	Schizophrenia	Olanzapine – Partial Risperidone – Complete
2	36	Male	Farmer	Lower	3	Dentist Physician Dermatologist	None	Olanzapine – No response Risperidone – Complete
3	46	Male	Farmer	Lower	1	Physician Dermatologist	Dhat syndrome Depressin	Risperidone – Complete

CONCLUSION

Effective collaboration and communication among healthcare professionals play a crucial role in identifying individuals experiencing delusions of parasitosis and facilitating prompt referral to a psychiatrist. This approach not only enhances the management of the disorder but also helps prevent associated psychiatric, dermatological, and other medical complications. At present, there is a lack of randomized controlled clinical trials specifically investigating the use of antipsychotics for delusional parasitosis. Therefore, further research is essential to thoroughly evaluate the existing treatment recommendations for this condition. A comprehensive understanding of the exact pathophysiology behind delusional parasitosis could open doors to innovative treatment approaches. However, due to the relative rarity of this illness, conducting a large multicenter study comparing antipsychotics for treating delusional parasitosis might pose challenges. Consequently, psychiatrists hold the responsibility of reporting cases of delusional parasitosis treated with antipsychotics, thereby contributing clinical evidence to support treatment choices, dosages, and therapeutic strategies.

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