

## Case Report

# Cultural influence in the development of delusional parasitosis: A case report

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### ABSTRACT

Delusional parasitosis is a rare condition in which the patient has a false and unshakable belief of being infested by parasites. Delusional parasitosis was classified as a subtype of monosymptomatic hypochondriacal psychosis in old literature. Though the delusion is considered to be primary, at times it is described as an elaboration of a primary pathological experience such as a tactile hallucination, paresthesia or pruritus. Although several cases of delusional parasitosis have been reported, the role of cultural belief systems and native treatments in turning an idea into a delusional disorder has not been adequately studied. This paper reports a case of delusional parasitosis in which cultural factors played a major role in shaping the delusion. The case was effectively managed with risperidone.

**Keywords:** Delusion, Cultural factors, Native treatment, Delusional parasitosis

### INTRODUCTION

Delusional parasitosis is a rare psychotic disorder characterized by the delusion of being infested with parasites such as insects, mites and flies.<sup>1</sup> Though the delusion is considered to be primary, at times it is described as an elaboration of a primary pathological experience such as tactile hallucination, paresthesia or pruritus.<sup>2</sup> Patients with delusional parasitosis believe that insects and worms live in their bodies and feed on them.<sup>3</sup> Delusional parasitosis was classified as a subtype of monosymptomatic hypochondriacal psychosis in old literature, and currently it is classified as a delusional disorder as per 10th revision of the International Classification of mental and behavioral disorders and “delusional disorder - somatic type” as per Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. Delusional disorder is predominantly an illness of middle to late adult life, commonly seen in persons who were married, and those belonging to the lower socio-economic class.<sup>4</sup> It is mostly reported in women, but isolated cases among men have also been reported.<sup>5</sup> Though it is believed

to be a rare disorder, the actual prevalence of delusional parasitosis may be underestimated. Patients and carers rarely acknowledge it as a mental illness and are reluctant to obtain psychiatric care. In addition, most of these patients report first to dermatologists, physicians or otolaryngologists since they have associated physical symptoms that are usually misdiagnosed.<sup>6</sup> It can be classified as primary or secondary according to etiology. It may occur secondary to other psychiatric disorders such as schizophrenia, depressive disorder or delirious states. It may also occur secondary to a medical illness such as diseases and malignancies of the blood, pulmonary, cardiac, renal, gastrointestinal, endocrine, central nervous system diseases, and nutritional deficiencies including vitamin B12 deficiency, folate deficiency and pellagra.<sup>7</sup> A study from the past reported and discussed the influence of Hindu religious and cultural belief systems in the development of delusional parasitosis. The same study discusses the involvement of body orifices such as ears, eyes, mouth, anal and urethral orifices with their special significance to delusional parasitosis.<sup>8</sup> Since then no other studies or case reports have discussed delusional parasitosis

in this context. Therefore, the present case would add to the limited literature available on the influence of cultural belief systems and native treatments in the development of delusional parasitosis.

## CASE REPORT

Mr A, a 33-year-old male was admitted to the psychiatry ward, Sri Ramachandra Medical College and Research Institute (SRMC and RI), Chennai, Tamil Nadu, India with complaints of suspiciousness that insects are crawling throughout his body since 2 years, sleep disturbances, decreased interaction with others, fearfulness, decreased food intake, vomiting and abdominal pain since 6 months. Patient was apparently normal 2 years back. One-day night during sleep, the patient felt an insect was crawling near his right ear; he got up immediately swatted it away. Next morning he started complaining that an insect was crawling inside his ear and claimed that it entered the ear the previous night. He was taken to an otolaryngologist who examined both ears and reassured the patient. However, the patient was not convinced and was preoccupied with the thought that an insect had entered his ear. Subsequently, he consulted another otolaryngologist and a general physician; he was examined and was reported to be normal. However, he could not accept their reassurances and remained preoccupied with the belief of an insect crawling in his ear. Finally, he sought native treatment at his village to remove the insect from his ear. The practicing faith healer poured oil into his ear and then with a straw he sucked the oil out into a polythene bag. The bag had about five to ten insects that were reported to be taken from his ear. Subsequently, he was better for a day or two, however his prior symptoms returned. He then visited the same faith healer and continued to remove five to ten insects each time he went. His conviction in his belief strengthened each time the faith healer claimed to have removed insects from his ear. He gradually started believing that the insects were reproducing within the ear as more seemed to appear even as they were being removed. A month later he believed that those insects had entered his body and were moving from his right ear to the left ear through his brain. He claimed that the insects in his stomach were causing his indigestion. As a result of which he developed abdominal pain, and vomiting. He also felt the insects were crawling all over his body and were biting at times, which disturbed his sleep. He remained convinced with his beliefs despite the reassurance given by his family members and medical professionals. These symptoms continued to persist with subsequent disturbances in his social and occupational functioning. He was then brought to SRMC and RI, was evaluated in the department of ENT, dermatology and was found to be physically normal. He was then referred to the department of psychiatry. He was admitted and treated with oral risperidone 2 mg at night that was later increased to 3 mg. He started showing improvement in his symptoms. At 3 weeks post initiation of treatment, his conviction and preoccupation with symptoms had significantly reduced. The patient and family members were psycho-educated in regard to his illness and the influence of cultural beliefs and native treatment in the development of his illness.

## DISCUSSION

In the present case the patient developed an idea that an insect entered his right ear. He remained preoccupied with that idea that caused physical sensations of insects crawling in his ear. This persisted despite the reassurance that he did not have insects in his ear by an otolaryngologist. The alleged treatment provided by the native healer falsely enhanced his conviction in regard to having insects inside his ear which further developed into somatic delusions. In this case, we have described how local cultural belief systems and native treatment methods could influence the metamorphosis of an overvalued idea into a delusional belief and lead to a delusional disorder. In the context of our report, studies from the past have reported patients where cultural belief systems would influence the form, course and response to treatment of mental illnesses.<sup>8,9</sup> It has also been reported that the clinical features of psychiatric illness, such as the content of delusions and hallucinations, are frequently determined culturally.<sup>10</sup> In addition, this case has also demonstrated the origin of the delusion to be the entry of insects through orifices. This was rarely reported as phenomenology of delusional parasitosis from western studies, where the delusions are primarily infestation of skin and hair by insects, mites.<sup>6,8,11-13</sup> However, phenomenology similar to our case has been reported in the past.<sup>8,14</sup> In the past many have proposed a treatment for delusional parasitosis as oral pimozide that is a typical antipsychotic. In this case, we treated the disorder with oral risperidone 3 mg/day, which was effective in decreasing the symptoms without any neurological and metabolic side effects. A few cases have been reported to be treated with oral ziprasidone.<sup>15</sup>

## CONCLUSION

Delusional parasitosis was considered to be a rare form of delusional disorder in the past, partly because they have been underdiagnosed as patients made frequent consultations with other specialists and refused psychiatric treatment. But there has been an increase in the case reports and case series in the last few decades. However, the present case would give an insight about the significance of cultural belief systems and native treatments in the development of delusional parasitosis.

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