



Original Research Article

Two cases of Delusional Parasitosis involving body orifices

Dr Prosenjit Ghosh¹, Dr. Puneet Verma² and Dr Jayanta Kurmi³¹Assistant Professor of Psychiatry, Silchar Medical College, Assam, India^{2,3}Post Graduate Trainee of Psychiatry, Silchar Medical College, Assam, India

*Corresponding Author

Dr Prosenjit Ghosh

Abstract: Background - Delusional parasitosis is an infrequent psychotic illness characterized by an unshaken belief of having been infested by a parasite. **Method** - The cases attended psychiatry department of a Teaching Hospital, Assam, India. They were examined independently by the authors and diagnosed as a case of persistent delusional disorder (monosymptomatic hypochondriacal psychosis-delusional parasitosis) as per International Classification of Disease (ICD-10-CDDG). **Discussion** - Patients reported infestation of body orifices specially the ears and eyes. This may be attributed to the religio-cultural beliefs, which attaches special significance to the 9 body orifices in the personal quest for physical mental and spiritual purity. **Conclusion** - Delusional disorder may be underdiagnosed as they present to dermatologists / physicians rather than Psychiatrists. These patients may be treated with risperidone, olanzapine, quetiapine.

Keywords: Delusional Parasitosis, Monosymptomatic Hypochondriacal Psychosis, Paranoia, Ekblom Syndrome, Culture.

INTRODUCTION

Delusional Disorder is an uncommon psychotic disorder characterized by a single, well encapsulated delusion. Among the various subtypes of delusional disorders, delusional parasitosis is seen more frequently in the elderly population. The syndrome is classified as a subtype of monosymptomatic hypochondriacal psychosis (MHP). There are well organized delusions, but no manifest perceptual disturbances, personality deterioration, or a formal thought disorder. The condition may be underdiagnosed or undiagnosed as they present to dermatologists, plastic surgeons and medical specialists more often than to psychiatrists (Munro, 1988).

Kraepelin first described delusional disorder in 19 cases and termed the condition as Paranoia. He used the term paranoia for extreme cases with isolated delusional system and paraphrenia for cases lying in between paranoia and dementia precox (Lewis, A. 1970).

According to the content the delusions fall into three main groups:

- Delusions of body odour or halitosis.

- Infestation delusions (insects, burrowing worms or foreign bodies under the skin).
- Delusions of ugliness of misshapeness (dysmorphic delusions).

Delusional parasitosis is an infrequent psychotic illness characterized by a strong belief of being infested by parasite/worms when one is not (Huber, M. *et al.*, 2007). This entity is also called Ekblom syndrome after the Swedish neurologist Karl Axel Ekblom who did excellent work on this entity (Rapini, R. P. *et al.*, 2007). Delusional parasitosis can be primary or secondary. Primary delusional parasitosis consists of a single delusional belief of having been infested by parasite and comes under monosymptomatic hypochondriacal psychosis (Freedberg, I.M., & Fitzpatrick, T.B. 2003). Secondary delusional parasitosis can occur in the background of other mental disorders like schizophrenia, depression, and dementia or may occur secondary to organic illness like hypothyroidism, vitamin B12 deficiency, diabetes, cerebrovascular disease, cocaine intoxication and HIV infection (Hinkle, N.C. 2000; Alves, C. J. M. *et al.*, 2010; Dorabedian, H. 2007).

Quick Response Code



Journal homepage:

<http://www.easpublisher.com/easjms/>

Article History

Received: 15.05.2019

Accepted: 02.06.2019

Published: 19.06.2019

Copyright © 2019: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

Patient may injure themselves to get rid of parasites. They may even bring dust, fibers, scab or debris excoriated from the skin as evidence of parasite infestation for inspection by the doctor which is often called as “match-box sign” (Tucci, V. *et al.*, 2009). Cutaneous symptoms like biting, crawling, or stinging sensation are often seen in delusional parasitosis (Dunn, J. *et al.*, 2010).

Here we present two cases of Delusional Parasitosis predominantly involving body orifices and the skin. Most of the reported cases of Delusional Parasitosis were associated with the involvement of skin and underlying tissues.

MATERIAL AND METHOD

The cases attended psychiatry department of a Teaching Hospital, Assam India. They were examined independently by the authors and diagnosed as a case of persistent delusional disorder (somatic type) as per International Classification of Disease (ICD-10-CDDG). Physical illnesses, as well as cognitive and sensory impairments that could be related to the symptom of parasitosis were excluded by relevant examination and investigation. The diagnosis of delusional parasitosis was made by consensus in all instances where the delusion was observed to be the central/primary phenomenon, and minor symptoms such as anxiety and depression occurred only as secondary phenomena.

CASE 1

The patient was a 62 year married Hindu male member of a joint family hailing from rural background, referred from Dermatology to Psychiatry OPD with the complaints of gradual onset itching all over the body for 1 year which he attributed to infestation by some insect like living organism. The intensity of the symptoms was same throughout the duration except occasional increase at night and during physical exertion. He also reported to notice the organisms in his urine which he used to get after filtering the urine. He himself had applied local remedies to get some relief. He revealed that he was unaware of the source of infestation and no other family members or neighbours had suffered from the same illness and it was confirmed by his son. There was no history of any Psychiatric illness or substance abuse in the past. He had been suffering from Hypertension and was under regular medication.

There was no evidence of infestation as examined by the Dermatologist. General Physical and Systemic Examination were normal. On detailed Psychiatric work up he was found to have anxious mood, preoccupation of infestation which was at delusional level, tactile hallucination (formication) with intact higher mental function and grade 2 Insight.

Routine blood, Urine examination; Thyroid profile, Blood glucose level & ECG were normal except slight elevation in triglyceride level. He was started on risperidone 2mg per day to which he responded very well at follow-up after 30days.

CASE 2

Mr. X, 55 yrs. old, illiterate, rickshaw puller by profession, Hindu by religion, reported in the Emergency department of a Tertiary Care Centre with incapacitating itching all over his body specially in lower back, abdomen, chest, and both upper arms for a period of 15yrs. It was insidious in onset and had progressively increased for the last 6months.

He attributed his problems to the presence of multiple small round insects (about the size of a pin head, almost 6-8mm, big ones black, small ones white) which had entered his body through the mouth and ear and was crawling all over the body. Occasionally the insects came out of the ear and when they did, he killed them by crushing them in between his palms, which he demonstrated. He also explained that initially there were 1-2 insects only but with each passing day they were multiplying in number and for the last 6 months had increased to such a proportion that his whole body was infested with them, resulting in severe cramping and burning sensation all over. He could not sleep at night due to itching and cramping, stopped going to work and stopped eating. He showed multiple local physicians and faith healers, who were not of much help either. The pain was so unbearable that he even tried to burn the insects by putting hot burnt sticks on his back and abdomen which resulted in extensive superficial burns in those regions.

He was examined subsequently by both surgeons and dermatologists who found no insects but extensive excoriations on lower back and abdomen due to superficial burn injuries. He was then referred to a psychiatrist where examination revealed delusion of infestation and tactile hallucinations. No other thought, perceptual or mood disorder was noted. His higher mental function revealed poor concentration, average intelligence, intact abstract thinking, impaired judgment and reasoning with insight being grade I. There was no history of any substance abuse or family history of any psychiatric illness.

All his routine blood investigations were done and he was diagnosed with Iron Deficiency Anemia and received 2 units of whole blood.

He was started on Risperidone (2mg) and Quetiapine (50mg) per day and after 2 months of treatment showed much improvement to the extent that there was reduction in itching. There was no fresh excoriation and the superficial burn wounds were also in the process of healing. Though the delusion still exists to some extent but the preoccupation, anxiety,

insomnia resulting from that the delusion have decreased and he can now concentrate on his daily activities.

DISCUSSION

There is not much literature about persistent delusional disorder in older adults. Studies often do not distinguish between delusions, in general, which can be present in the background of other psychotic disorders, and delusional disorder more specifically. Winokur (1977) reported a prevalence of 0.1 to 0.4% and Kendler (1982) in his review reported 1 to 4% of delusional disorder in psychiatric inpatients.

The main findings of our study were – insidious onset, long standing illness, rural background, involvement of body orifices, male gender, late age of onset, delayed contact with psychiatrist, self-inflicted injuries to get rid of the insects and good response to Risperidone.

Patients reported infestation of body orifices specially the ears and eyes. This may be attributed to the religio-cultural beliefs, which attaches special significance to the 9 body orifices for achieving mental and spiritual purity. The culture in which a patient lives has been shown to influence the form, course and response to treatment of mental illnesses. Kiev (1972) pointed out that the secondary features of psychiatric illness, such as the content of delusions and hallucinations, are frequently determined culturally. For the Hindus, the paired eyes, ears and nostrils, the mouth, the anus and the urethra are the portals of communication between body, the soul, and the surrounding physical and spiritual world. Maintenance of the sanctity and moral integrity of these nine organs is considered essential for a pure life. Srinivasan *et al.*, reported seven cases of Delusional Parasitosis, all Hindu by religion and involving body orifices (Srinivasan, T. N. *et al.*, 1993).

These religious beliefs are reinforced by native healers who "specialize" in removing "insects" from ears. In fact, the local treatment for dental caries (known as dental infection by worms) is the removal of the worms through the ears. These beliefs are more common in patients coming from low socioeconomic status. It appears that patients with low socioeconomic status and low education easily accept culturally prevalent beliefs and hold it with conviction and in some people it reaches delusional proportions. Patients in developing countries are known for somatic presentation of psychiatric illness (e.g. somatization, conversion disorder and catatonia are common in ' developing countries).

Tandon *et al.*, (1990) also reported in their study - the majority of the patients were over 50 years of age, Male-Female ratio was 5:7, illness was predominantly present in rural dwellers with per capita

income less than Rs. 69 per month and majority of the patients were Hindus (85.47%).

Almost selective involvement of the elderly patients supports similar observation of other workers (Skott, A. 1978; Munro, A. 1980). The theory, that senescent sensory system together with a dry and flaky skin which pricks and itches more in the older age group, may contribute to the development of this abnormality is supported by the findings of our study.

Hebbar *et al.*, (1999) analyzed 45 cases of Delusional Disorder and found Male to female gender ratio was 1.3:1. Most of the patients (93%) were Hindus by religion. The most important finding of their study was that delusional infestation was found to be the most common subtype of delusional disorder.

Our patients improved significantly with atypical antipsychotics Risperidone in low dose. Earlier researchers like Naveen Kumar *et al.*, (2012), Hebbar *et al.*, (1999) and Narayan Gowda *et al.*, (2002) also reported good improvement with atypical antipsychotics Risperidone and Olanzapine.

We did not analyze the personality profile of the patients. Earlier researchers reported – Obsessional, Histrionic, Schizoid and avoidant personalities as risk factors.

CONCLUSION

To establish the diagnoses of delusional disorder, clinician must rule out the possibility delirium, dementia, psychotic disorders due to general medical conditions or substance use, schizophrenia, mood disorders with psychotic features and significant organic brain syndrome. Delusional disorder may be underdiagnosed as they present to dermatologists / physicians rather than Psychiatrists. These patients may be treated with risperidone, olanzapine, quetiapine. Treatment should be started at low dose and gradually be titrated upward.

REFERENCES

1. Munro, A. (1988). Monosymptomatic hypochondriacal psychosis. *British Journal of Psychiatry*, 153 (2), 44-46.
2. Lewis, A. (1970). Paranoia and Paranoid: a historical perspective. *Psychological Medicine*, 1, 2-12.
3. Huber, M., Kirchler, E., Karner, M., & Pycha, R. (2007). Delusional parasitosis and the dopamine transporter. A new insight of etiology? *Med Hypothesis*, 68, 1351-8.
4. Rapini, R. P., Bologna, J. L., & Jorizzo, J. L. (2007). Assessment of risk factors of heart disease. *Dermatology*, 2, 1415-1416.
5. Freedberg, I.M., & Fitzpatrick, T.B. (2003). *Fitzpatrick's dermatology in general medicine*. 6th

- ed. New York: McGraw-Hill, Medical Pub. Divisio,
6. Hinkle, N.C. (2000). Delusory Parasitosis. *Am Entomol*, 46, 17- 25.
 7. Alves, C. J. M., Martelli, A. C. C., Fogagnolo, L., & Nassif, P. W. (2010). Secondary Ekbom syndrome to organic disorder: Report of three cases. *Anais brasileiros de dermatologia*, 85(4), 541-544.
 8. Dorabedian, H. (2007). Delusion of Parasitosis. *Clin Infect Dis*, 45, e131-4.
 9. Tucci, V., Greene, J.N., & Vincent, A.L. (2009). Delusional parasitosis and Factitious dermatitis. *Infections in Medicine. Infect Med*, 26, 84-8.
 10. Dunn, J., Murphy, M. B., & Fox, K. M. (2007). Diffuse pruritic lesions in a 37-year-old man after sleeping in an abandoned building. *American Journal of Psychiatry*, 164(8), 1166-1172.
 11. Winokur, G. (1977). Delusional disorder (paranoia). *Comprehensive Psychiatry*, 18, 511-521.
 12. Kendler, K.S. (1982). Demography of paranoid psychosis (delusional disorder): a review and comparison with schizophrenia and affective illness. *Archives of General Psychiatry*, 39, 890-902.
 13. Kiev, A. (1972). *Transcultural Psychiatry*, 11-57. Middlesex: Penguin.
 14. Srinivasan, T. N., Suresh, T. R., Jayaram, V., & Fernandez, M. P. (1993). Delusional parasitosis of body orifices-a cultural variant?. *Indian journal of psychiatry*, 35(4), 218.
 15. Tandon, A. K., Singh, K. G., Agarwal, R., Rastogi, C. K., & Tandon, S. K. (1990). A psychosocial study of delusional parasitosis. *Indian journal of psychiatry*, 32(3), 252.
 16. Skott, A. (1978). Delusions of Infestation. Reports from the Psychiatric Research Centre, No. 13, St. Jorgen Hospital. Sweden: University of Goteberg.
 17. Munro, A. (1980). Monosymptomatic hypochondriacal psychosis. *British Journal of Hospital Medicine*, 24, 34-38.
 18. Hebbbar, S., Ahuja, N., & Chandrasekaran, R. (1999). High prevalence of delusional parasitosis in an Indian setting. *Indian journal of psychiatry*, 41(2), 136.
 19. Kansal, N., Chawla, O., & Singh, G. (2012). Treatment of delusional infestation with olanzapine. *Indian journal of psychological medicine*, 34(3), 297.
 20. Gowda, B. N., Heebbar, S., & Sathyanarayana, M. T. (2002). Delusional parasitosis responding to risperidone. *Indian journal of psychiatry*, 44(4), 382.