Delusional parasitosis in ENT

Satheesh Kumar Bhandary · Ranjit Peter · Shrinivas Bhat

Abstract Otolaryngologists in India often encounter patients with various insects presenting as foreign bodies in the ear and nose. However they overlook the possibility of the clinical entity that has come to be known as delusional parasitosis. Three patients presented in our OPD with this condition and their case reports are discussed.

Keywords Delusional parasitosis · Morgellons disease

Introduction

Synonyms Delusional Parasitosis, Ekbom syndrome, Monosymptomatic hypochondriasis, formication, morgellons disease.

First described by Wilson [1] in 1946, Obermeyer [2] in 1961 defined delusional parasitosis as an unshakable false belief that live organisms are present in the skin. These organisms range from insects to worms and bacteria, the type depending upon the parasitological knowledge of the patient. The most important diagnostic consideration is the fact that patients with delusion of parasitosis experience the state of being infested. An obsessional anankastic personality is a predisposing factor in most patients [3]. Female cases are most frequently reported [4, 1]. The syndrome is preceded by an original and real insect infestation acting as a trigger. Senile pruritis or tactile sensory disorders may act as triggers that become elaborated into a delusion and are fixed [4, 1]. Some of the presenting complaints include itching, biting, stinging and crawling sensation. The patient desperately attempts to find a causative agent. Some people mutilate themselves externally and internally. Sometimes the parasites appear to be visible to the afflicted but cannot be caught. We here present three cases of delusional parasitosis presented in our OPD.

Case 1

A 23-year-old unmarried female patient presented in the department of ENT with history of insect in the right ear since two weeks. She was complaining of crawling sensation in the ear and in an attempt to kill it she had caused abrasion over the external auditory canal skin. She was not depressed; her appetite was good but complained of disturbed sleep. Cognitive functions were intact. She was angry when no confirmation of this infestation was forthcoming. She had visited various family physicians and quacks in vain. There was no evidence of any similar family history. On

S. K. Bhandary¹ · R. Peter¹ · S. Bhat²

¹Department of Ear, Nose and Throat

²Department of Psychiatry

Justice K.S.Hegde Charitable Hospital,
K.S.Hegde Medical Academy,
Deralakatte, Mangalore - 574 160,
Karnataka, India

S. K. Bhandary (✉)

E mail: sakubaraj@yahoo.com

general physical examination the patient was fit except for an anxious look

ENT examination revealed skin lacerations in the right external auditory canal. On otoscopic examination, no insect was found. Tympanic membrane was intact. Hearing was within normal limits.

The patient was evaluated by performing various laboratory investigations, which included skin scrapings all of which proved to be within normal limits. The patient was reassured and treated for skin abrasion with antibiotics and analgesics. The patient was followed up after a week and she continued to believe that there was an insect. The patient was evaluated by a psychiatrist and started on tablet Pimozide 2 mg. OD with vitamin supplements for two weeks. The patient showed a marked improvement and was followed up for three weeks.

Case 2

A 70-year-old male patient, who was a temple priest living a solitary life, presented with history of insect in the right ear since five days. He insisted on cleaning the ear. He had brought some black material covered in a piece of paper and insisted that it was an insect which often came out of his ear. He was depressed and anxious. His belief of infestation began after an alleged episode of a housefly entering his ear. On ENT examination, the external auditory canal skin appeared dry. Tympanic membrane did not show any abnormality. Other parameters namely skin scrapings; hematological investigations were all within normal limits.

This patient did not have a psychiatric history. No other members of his family ever suffered from this disorder. The patient in spite of reassurance was not willing to accept the fact and continued to switch doctors. He insisted in his ear being syringed. Senile pruritis or other tactile sensory disorders were ruled out after consultation with a dermatologist and psychiatrist. Other triggers such as systemic diseases (Diabetes Mellitus, TB, and Syphilis) & deficiency states such as pellagra were also ruled out. The patient was started on Tab Pimozide 2 mg OD for one month and reassured and showed marked improvement. The drug was stopped after one month and the patient reported total symptomatic relief.

Case 3

A 58-year-old retired postman presented with history of insect flying out of his nose and crawling and itching sensation over external nose.

On examination, general physical examination was within normal limits. Throughout the examination of the nose, the patient had made repeated attempts to rub away insects from the nose. Anterior and posterior rhinoscopy,

hematological and radiological evaluation of the nose and paranasal sinuses were within normal limits. The patient was counseled by a psychiatrist, diagnosed as delusional parasitosis and reassured. The patient was started on Tab Pimozide 2 mg OD for two weeks. However the patient was lost for follow up.

Discussion

Ekbom [5] in 1938 described a condition similar to delusional parasitosis and hence the term Ekbom's syndrome has been used by some authors. Delusional parasitosis, named in 1946, [1] is a chronic psychiatric disorder in which patients have a false and fixed belief that they are infested by parasites. Savely et al [6] introduced the term Morgellons disease to describe a type of infestation characterized by fibers attached to the skin. Koblenzer [7] and Waddell and Burke [8] have discussed the utility of the term, with Murase et al [9] finding the term useful for building a therapeutic alliance with patients with DP. The Centers for Disease Control and Prevention is currently investigating Morgellon disease [10]. It has been recognized as a separate entity from other phobias [11]. There is a delusion of infestation, usually insidious in onset and patients usually seek help from dermatologists. It is preceded by a primary tactile experience, such as pruritis or paraesthesia, or tactile hallucination, which precipitates the secondary delusion of infestation.

In the classification system of the *Diagnostic and statistical manual of mental disorders* (DSM-IV), primary delusional parasitosis corresponds to “delusional disorder, somatic type”, while the secondary organic type corresponds to “psychotic disorder due to general medical condition” [7].

The prevalence of delusional parasitosis is unknown, but our literature review identified several hundred cases reported by dermatologists and entomologists [11, 13–16]. It can occur at any age, the average being in the fifth decade. In the older age group, women are more often affected than men [11, 15].

Patients provide incredibly detailed descriptions of the “bugs” and explanations about why they are not visible on examination. They often bring in “specimens” in a small container, which are actually pieces of skin, lint or hair (“the matchbox sign”), or may identify “bugs” during examination by probing into skin until they are able to pick up a small piece of tissue. This may produce traumatic ulcers of varying size; typically on areas the patient can reach, in an asymmetrical distribution corresponding to the dominant hand. Secondary dermatitis may develop as a result of repeated washing and application of chemical preparations [11].

The first step in management is aimed at excluding a real infestation and any underlying condition, including psychi-

atric disorders, medical conditions with altered sensation, use of drugs or alcohol withdrawal. Mental state, including cognition, needs to be assessed. Other investigations may include examination of skin scrapings and skin biopsies subject to the patients' consent. A major step in the treatment is to establish a firm doctor–patient relationship. An empathic approach is required, acknowledging the reality of patients' symptoms without challenging or confirming their views about the cause. Samples of any alleged parasites presented must be examined.

The workup includes referral to a psychiatrist. Treatments include Pimozide [11–15] and there is some evidence of effective treatment with newer atypical antipsychotics such as risperidone [12]. Pimozide is a useful drug for delusional parasitosis. An antipsychotic of the diphenylbutylpiperidine class, is a selective DA antagonist with little alpha adrenergic or cholinergic blocking activity. It is a neuroleptic drug administered in once daily dose and can cause extra pyramidal side effects but these are considered less severe than other neuroleptics. Two of the three patients showed freedom from symptoms following treatment with Pimozide. Medication compliance can be a problem with several patients shifting doctors. There have been some reports that tricyclic antidepressants and anxiolytic agents alleviate the reactive component of the condition without much effect on the delusions [11, 15]. Doxepin has strong antihistamine and anxiolytic effects, in addition to its antidepressant effect, and, based on its effectiveness in chronic neurotic excoriation [18] may be useful in patients who frequently experience intense pruritis, anxiety and agitation as well as depressive symptoms. Corticosteroid creams and lotions may be helpful adjuncts to alleviate skin symptoms. The prognosis of Delusional parasitosis was reported as poor in earlier literature [18].

Conclusion

Delusional parasitosis is a false belief that live organisms are present in the skin. These patients often present in the ENT outpatient department with various complaints pertaining to the ear and nose. After ruling out ENT pathology, psychiatric evaluation should be carried out in order to diagnose Delusional Parasitosis. The prognosis has been reported to be poor [18]. However Tab. Pimozide 2 mg OD for two weeks showed very promising results in our patients.

References

1. Wilson JW, Miller HE (1946) Delusions of parasitosis (acrophobia). *Arch Dermatol Syph* 54:39–56
2. Obermeyer, ME (1961) Dynamics and management of self-induced eruptions. *California Medicine* 94(2):61–65
3. Bourgeois M, Amestov JM, Durand J (1981) Délires d'infestation, dermatozooses et ectoparasitoses délirantes, syndrome d'Ekbom. *Ann Med Psychol (Paris)* 139: 819–828
4. Berrios, GE (1985) Delusional parasitosis and physical disease. *Comprehensive Psychiatry* 26(5):395–403
5. Ekbom, KA (1938) Der praesenile Dermatozo-enwahn. *Acta Psychiatr Neurol Scand* 13:227–259
6. Savely VR, Leitao MM, Stricker RB. The mystery of Morgellons disease: infection or delusion?. *Am J Clin Dermatol* 7(1):1–5
7. Koblenzer CS (2006) The challenge of Morgellons disease. *J Am Acad Dermatol* 55(5):920–922
8. Waddell AG, Burke WA (2006) Morgellons disease?. *J Am Acad Dermatol* 55(5):914–915
9. Murase JE, Wu JJ, Koo J (2006) Morgellons disease: a rapport-enhancing term for delusions of parasitosis. *J Am Acad Dermatol* 55(5):913–914
10. Marris E (2006) Mysterious 'Morgellons disease' prompts US investigation. *Nat Med* 12(9):982
11. Driscoll MS, Rothe MJ, Grant-Kels JM, Hale MS (1993) Delusional parasitosis: a dermatologic, psychiatric, and pharmacologic approach. *J Am Acad Dermatol* 29:1023–1033
12. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 4th edition (DSM-IV). Washington: APA, 1994.
13. Munro A (1983) Delusional parasitosis: a form of monosymptomatic hypochondriacal psychosis. *Semin Dermatol* 2: 197–202
14. Johnson GC, Anton RF (1985) Delusions of parasitosis: differential diagnosis and treatment. *South Med J* 78: 914–918
15. Bhatia M, Jagawat T, Choudhary S (2000) Delusional parasitosis – a clinical profile. *Int J Psych Med* 30:83–91
16. Trabert W (1995) 100 years of delusional parasitosis. *Psychopathology* 28:238–246
17. Safer DL, Wenegrat B, Roth WT (1997) Risperidone in the treatment of delusional parasitosis: a case report. *J Clin Psychopharmacol* 17:131–132
18. Harris GA (1987) Improvement of chronic neurotic excoriations with oral doxepin therapy. *Int J Dermatol* 26:541–543
19. Reilly, TM (1988) Delusional infestation. *Brit J Psychiat* 153:82:44–46