



## ENT MANIFESTATIONS OF DELUSIONAL PARASITOSIS REINFORCED BY TRADITIONAL EAR SUCTION PRACTICES: A THREE-CASE SERIES

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### ABSTRACT

**Background:** Delusional parasitosis is a rare psychiatric disorder characterized by a fixed false belief of infestation despite the absence of objective evidence. Although commonly encountered in dermatology, otorhinolaryngological presentations are uncommon and may be influenced by traditional healing practices. **Methods:** We report a retrospective case series of three patients who presented to the ENT outpatient department with persistent beliefs of insect infestation of the ear following traditional ear suction procedures. Clinical findings, management, and outcomes were reviewed from hospital records. **Results:** All three patients had a history of traditional ear suction practices during which insects were reportedly removed and shown to them. Despite normal otoscopic findings and absence of objective evidence of infestation, all patients maintained a fixed belief that insects remained within their ears. Psychiatric evaluation confirmed delusional parasitosis. Treatment with counselling and risperidone resulted in significant symptomatic improvement in all cases. **Conclusion:** Traditional ear suction practices may reinforce infestation-related delusions and contribute to delayed diagnosis. Awareness of this rare presentation among otorhinolaryngologists can facilitate early recognition, avoid unnecessary investigations, and promote timely psychiatric referral and management.

**KEYWORDS :** Delusional Parasitosis, Delusional Infestation, Ear Suction, Ekbohm Syndrome, Otorhinolaryngology.

### INTRODUCTION

Delusional parasitosis, also known as delusional infestation or Ekbohm syndrome, is a rare psychiatric disorder characterized by a fixed false belief of infestation despite the absence of objective clinical evidence. Patients strongly maintain this belief and often fail to accept medical reassurance or alternative explanations for their symptoms. (1)

Delusional parasitosis is a rare somatic subtype of delusional disorder characterized by a persistent false belief of infestation despite lack of objective evidence. It occurs more commonly in females and typically presents in middle-aged and elderly individuals. (2) The exact pathophysiological mechanism remains unclear but is thought to involve dopaminergic dysregulation and abnormalities in dopamine transporter function. (3)

Ear involvement in delusional parasitosis is uncommon and may be influenced by cultural beliefs and traditional healing practices. In many rural communities, traditional healers perform ear suction procedures claiming to remove insects from the ear. The material shown to patients as proof of infestation may reinforce their false beliefs and contribute to persistence of symptoms. Similar exposure to traditional extraction practices was reported in three of five patients with ear-related delusional parasitosis in a previous study by Bhandary et al. (4) Antipsychotic therapy resulted in significant symptomatic improvement. (5)

The cases presented emphasize the need for heightened awareness among ENT practitioners regarding delusional parasitosis as a differential diagnosis in patients with persistent beliefs of ear infestation. Thorough otological assessment, appropriate exclusion of organic causes, and a multidisciplinary approach involving psychiatric evaluation are crucial for effective treatment and improved patient outcomes.

### MATERIALS AND METHODS

This retrospective case series included three patients

presenting to the ENT outpatient department between June 2024 and June 2025 with complaints suggestive of ear infestation and a history of traditional ear suction practices. Clinical data were obtained from hospital records, including demographic details, presenting symptoms, otoscopic findings, management, and psychiatric evaluation outcomes.

### Case Presentations

#### Case 1

A 75-year-old female from a nearby rural village, living alone, presented to the ENT outpatient department with complaints of a crawling sensation in the ear and head, ear pain, and a sensation of ear blockage for the past two months. She reported that prior to presentation, she had consulted a local traditional practitioner for ear pain and ear blockage. During that visit, a procedure involving suction applied to the external auditory canal using a tube-like device was performed on two occasions. The practitioner reportedly removed multiple insects (approximately 50) from the ear and presented them to the patient.

Following this, the patient developed a persistent belief that live insects remained within her ear and had possibly entered her brain, which she associated with ongoing ear pain. She strongly insisted on undergoing neuroimaging to confirm the presence of insects. The patient also reported symptoms of anxiety and disturbed sleep following the incident.

On ENT examination, the external auditory canal showed excoriations likely due to repeated self-cleaning by the patient, while the tympanic membrane appeared normal. No evidence of insect infestation or other pathology was noted on otoscopic examination. Despite repeated reassurance and treatment for external auditory canal abrasions, the patient continued to revisit the ENT outpatient department with persistent complaints of live insects in the ear and repeatedly requested imaging investigations.

Computed tomography (CT) of the brain and magnetic resonance imaging (MRI) were performed, both of which were

reported as normal. A psychiatric consultation was obtained, and the patient was diagnosed with Delusional Parasitosis. She was initiated on Risperidone 1 mg at night, which was later increased to 2 mg at night. The patient showed significant symptomatic improvement on follow-up and continued regular follow-up for six months.

### Case 2

A 70-year-old male from a rural area near Tindivanam presented with persistent crawling sensations in both ears and over his body, associated with anxiety and sleep disturbance. He reported undergoing approximately ten sessions of traditional ear suction by a local practitioner who claimed to remove insects from his ears, but his symptoms persisted. The patient was a known case of depression on antidepressant therapy. Otoscopic examination revealed mild bilateral external auditory canal abrasions with intact tympanic membranes. No insects, foreign bodies, or active ear disease were identified. Pure tone audiometry was normal, and dermatological evaluation excluded cutaneous infestation.

The patient was reassured and treated symptomatically for canal abrasions. However, he continued to firmly believe that insects were present despite repeated explanations and normal clinical findings. Psychiatric evaluation led to a diagnosis of delusional parasitosis associated with depressive disorder. He was counselled and started on risperidone with vitamin supplementation. Significant improvement in symptoms and sleep quality was noted within two weeks, with sustained recovery during three months of follow-up.

**Table 1. Clinical Characteristics of Patients with Delusional Parasitosis**

| Case | Age/<br>Sex | Presenting Symptoms                                    | History of Traditional<br>Ear Suction | Associated<br>Psychiatric Factors | Treatment                 | Outcome                 |
|------|-------------|--------------------------------------------------------|---------------------------------------|-----------------------------------|---------------------------|-------------------------|
| 1    | 75/F        | Crawling sensation, ear pain, ear blockage             | Yes                                   | Anxiety                           | Risperidone + counselling | Significant improvement |
| 2    | 70/M        | Crawling sensation in ears and body, sleep disturbance | Yes                                   | Depression                        | Risperidone + counselling | Significant improvement |
| 3    | 45/F        | Persistent belief of insects in ear, anxiety           | Yes                                   | Psychosocial stressors            | Risperidone + counselling | Significant improvement |

### DISCUSSION

Delusional parasitosis (DP), also known as Ekbom syndrome, is an uncommon psychiatric disorder characterized by a persistent and fixed false belief of infestation despite the absence of objective evidence.<sup>(6)</sup> Although the condition is most frequently encountered in dermatology practice, otorhinolaryngological presentations are uncommon and may pose a diagnostic challenge to ENT specialists.<sup>(7)</sup> Large case reviews have demonstrated that sociocultural influences, personal interpretations of bodily sensations, and external validation of symptoms may contribute to the development and persistence of infestation-related delusions. Management of delusional parasitosis requires careful patient engagement, establishment of a therapeutic alliance, and appropriate psychiatric referral.<sup>(8)</sup> Delusional parasitosis may occur as a primary psychiatric disorder or secondary to underlying psychiatric conditions such as depression, anxiety disorders, and psychotic illnesses. In the present series, one patient had a known depressive disorder, while another experienced significant psychosocial stressors, supporting the multifactorial nature of the condition. Traditional ear suction practices may act as a form of external validation, reinforcing infestation-related beliefs and delaying psychiatric referral in susceptible individuals.<sup>(4)</sup>

Management of delusional parasitosis requires a multidisciplinary approach involving ENT specialists and mental health professionals. Establishing a therapeutic alliance, avoiding direct confrontation of the patient's beliefs, and providing appropriate psychiatric referral are important components of management. All three patients in our series

### Case 3

A 45-year-old female from a rural village near Tindivanam presented to the ENT outpatient department with a persistent belief that insects were present within her ear and a fear that they might migrate to her brain. She reported having consulted a local traditional practitioner on two occasions, during which insects were allegedly removed from her ear. Despite these interventions, her symptoms persisted.

The patient subsequently sought consultation at multiple ENT clinics for reassurance. Repeated otorhinolaryngological evaluations were reported to be normal; however, she continued to hold a fixed belief that insects remained within her ear and could potentially enter the brain. The symptoms were associated with significant anxiety. Further history revealed psychosocial stress related to the responsibility of caring for her two daughters following the death of her husband.

On examination, the external auditory canals were normal bilaterally, and both tympanic membranes were intact with no evidence of infestation, foreign body, or other otological pathology. Pure-tone audiometry demonstrated normal hearing thresholds. In view of the persistent false belief despite normal clinical findings and repeated reassurance, the patient was referred for psychiatric evaluation. Psychiatric assessment established a diagnosis of delusional parasitosis associated with psychosocial stressors. The patient received psychiatric counselling and was initiated on risperidone therapy. Significant symptomatic improvement was observed after two weeks of treatment, with a reduction in her anxiety and infestation-related beliefs.

demonstrated significant clinical improvement following psychiatric counselling and treatment with risperidone, consistent with previous reports describing favorable outcomes with second-generation antipsychotic therapy.<sup>(9)</sup>

This case series highlights the importance of considering delusional parasitosis in patients presenting with persistent complaints of insects in the ear despite normal clinical findings. Increased awareness among otorhino-laryngologists regarding culturally reinforced infestation beliefs and traditional ear suction practices may facilitate early diagnosis, reduce unnecessary investigations, and promote timely psychiatric intervention.

### CONCLUSION

Delusional parasitosis should be considered in patients presenting with persistent complaints of insect infestation despite normal otological findings. Traditional ear suction practices may reinforce these false beliefs and delay appropriate treatment. Early recognition by ENT specialists and timely psychiatric referral can prevent unnecessary interventions and improve patient outcomes.

### Ethical Considerations

Written informed consent for publication was obtained from all patients. Patient confidentiality was maintained by anonymizing all identifying information. As this was a retrospective descriptive case series based on routine clinical care, formal Institutional Ethics Committee approval was not required according to local institutional policy.

**Conflict of Interest**

None declared.

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