

## Delusional Infestation With Black Mold Presenting to the General Hospital

**To the Editors:** Delusional infestation is defined by fixed, false beliefs of infestation with parasites or inanimate objects. Patients typically present to clinicians in primary care and dermatology rather than to mental health practitioners.<sup>1</sup> To our knowledge, this is the first reported case of delusional infestation associated with “black mold.” Further, it is a rare case with systemic involvement and of fungus-related delusional infestation.

**Case report.** Mr A, a divorced 54-year-old homeless white man, was transferred to our hospital’s medicine service for videoelectroencephalography (vEEG) after experiencing seizures at another hospital. He reported taking more than 20 mg of lorazepam daily, explaining that lorazepam treated the “neurotoxic” effects of a “black mold infection” he acquired over 1 year ago, and his lorazepam supply had run out 2 days prior to presentation. He attributed numerous somatic symptoms to the black mold, or *Stachybotrys chartarum*, infection including tinnitus, fatigue, and headaches. Mr A was a limited historian and declined to identify collateral sources but alluded to multiple inpatient psychiatric and substance admissions. Pertinent medical history was limited to a head injury as an adolescent. Mental status examination revealed an unkempt, agitated man with forceful speech, intense and labile affect, and obsessive thoughts with moderate paranoia. His thoughts were perseverative and overinclusive but generally linear and goal-directed. He denied hallucinations or suicidal or homicidal ideation.

No seizure activity was seen on the vEEG, and a comprehensive physical, laboratory, and neuroimaging workup did not reveal evidence of fungal infection or another cause for his reported symptoms. Neuroleptics and mood stabilizers were recommended for psychosis and mood elevation but were persistently refused. A slow lorazepam taper was accompanied by episodes of rhythmic shaking and agitation at doses below 8 mg daily. Repeated EEGs during these episodes were unrevealing, substantiating a diagnosis of nonepileptic seizures. Mr A was dissatisfied with the taper and ultimately discharged against medical advice after undergoing a risk assessment and capacity evaluation. He refused treatment referral.

Delusional infestation principally involves the skin, and almost all reported cases with fungus include dermatologic manifestations. We conducted a literature search using MEDLINE, EMBASE, and PsycINFO using terms related to delusions (*psychosis*, *psychotic*, *delusion*\*, *delusory*, *Ekbom*\*, *parasitophobia*\*, and *Morgellon*\*) with those related to fungus/black mold (*mold*\*, *fungus*, *fungus*, *mycotoxin*\*, and *Stachybotrys*).<sup>2–6</sup> Table 1 provides a summary of the cases found.

This is a rare report of delusional infestation with systemic symptoms and, to our knowledge, the first reported case of black mold delusional infestation. Whereas a controversial study suggests that mycotoxins may cause vague neurologic illness,<sup>7</sup> our patient’s limited mold exposure more than 1 year prior to presentation with persistent symptoms is inconsistent with even that report. Severe benzodiazepine use disorder was evident. A clear understanding of Mr A’s psychosis was hindered by lack of collateral history. No secondary cause was identified, so our differential diagnosis included schizophrenia, schizoaffective disorder, bipolar disorder, or obsessive-compulsive disorder with absent insight.<sup>3</sup> Conversion disorder, factitious disorder, and malingering were also considered given the vEEG results. Detailed discussion of managing delusional infestation has been reviewed elsewhere.<sup>8–10</sup> Management should include medical workup to rule out secondary causes. First-line treatment for primary delusional infestation includes antipsychotic medication. Both first-generation<sup>10</sup> and second-generation<sup>9</sup> agents have been used successfully. Attention should be given to common comorbid disorders such as depression and anxiety.<sup>11</sup> Mental health referral is recommended.

Patients with delusional infestation suffer substantially from psychosocial dysfunction and are at increased risk for harm from hazardous treatments, as exemplified by our patient using high-dose benzodiazepines. As with this case, most patients with delusional infestation present to nonpsychiatric physicians, thus an understanding of diagnosis, workup, and treatment approaches is critical to limit unwarranted medical intervention and promote functional recovery.

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**Table 1. Previously Reported Cases of Delusional Parasitosis or Infestation With Fungal Etiology**

Reference	Clinical Vignette
Sugahara et al <sup>2</sup>	A 78-year-old Japanese man who had a left-sided occipitotemporal and parietotemporal stroke 6 years prior; he had persisting word deafness and complained of chronic tinea despite absence of infection
Khalili et al <sup>3</sup>	A patient (demographics not given) with “toxin” contamination phobia associated with agoraphobia; the clinical description is suggestive of obsessive-compulsive disorder with absent insight/delusional beliefs
Geddes and Rashid <sup>4</sup>	A 49-year-old woman with repeated medical presentations with reported tinea despite absence of evidence on potassium hydroxide preparation and negative Wood’s lamp examination
Narang et al <sup>5</sup>	A 21-year-old female engineering student with historical tinea faciale who believed she had multifocal recurrences of tinea over her body despite negative microscopy of lesions and normal Wood’s light examination; olanzapine, optimized to 10 mg, led to decreased preoccupation with perceived tinea
Fisher et al <sup>6</sup>	A 55-year-old retired physician taking prescription amphetamines medically admitted after suffering a scalp laceration and minor subdural hematoma due to a fall while intoxicated; he was convinced he had a rare case of disseminated dermatophytosis due to tinea capitis

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**Alan S. Lewis, MD, PhD**  
alan.lewis@yale.edu  
**Mark A. Oldham, MD**

**Author affiliations:** Department of Psychiatry, Yale University School of Medicine (both authors) and Psychological Medicine Service, Yale-New Haven Hospital (Dr Oldham), New Haven, Connecticut.

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