



# Enfermedades Infecciosas y Microbiología Clínica

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## Editorial

### Delusional parasitosis: An unrecognized and underdiagnosed entity?

### Parasitismo Delusorio: una entidad poco reconocida y diagnosticada?



Delusional parasitosis, delusional infestation, or Ekbom syndrome is a condition describing a persisting false belief of infestation by insects or parasites, or in the case of the subtype Morgellons syndrome, by inanimate objects such as fibres, hairs, particles or crystals.<sup>1</sup>

The described incidence, around 1.9 per 100,000 person-years, and prevalence, up to 27.3 per 100,000 person-years, of this disorder may vary according to different series but considerably lower rates have been described suggesting delusional parasitosis may be underreported.<sup>2,3</sup> A recent study based at a reference hospital for Tropical Diseases in the UK estimated patients presenting with a suspected diagnosis of delusional parasitosis accounted for up to 15% of clinic visits.<sup>4</sup> This appears to be an underdiagnosed disorder for several reasons. Patients' belief that the parasitosis is real leads to presentation to diverse healthcare providers, dermatologists, infectious disease specialists or emergency care doctors, less experienced in the diagnosis and management of psychiatric conditions, and mental health professionals are generally not consulted initially.

Primary and secondary delusional parasitoses must be distinguished, as the latter occur when the delusion is a symptom secondary to another underlying condition (such as another psychiatric disorder, head trauma, substance abuse, prescribed drugs, dementia, nutritional deficiencies, or thyroid disorders, among others) which should be correctly and promptly diagnosed and treated. The diagnostic work-up of patients with suspected delusional parasitosis should thus be focused on both excluding a direct cause of the symptoms experienced by the patient, mainly an ectoparasitic or endoparasitic infection, and diseases which may be associated with secondary delusional parasitosis. Although in the majority of cases of suspected delusional parasitosis, no evidence of a genuine infestation is found, a complete physical examination and directed complementary studies may yield a parasitic cause, as described in two patients (2/20, 10%) in the multicenter retrospective series published in this issue.<sup>5–7</sup>

Management of delusional parasitosis may be extremely complex and may involve a combined multidisciplinary approach with an established, reassuring patient–physician rapport, cognitive behavioural therapy and pharmacological management. Although the exact pathophysiological mechanism of delusional parasito-

sis is largely unknown, dopamine imbalance has been postulated as a contributing factor and this is supported by multiple reports describing symptoms mimicking those of Ekbom syndrome in association with use of dopamine agonists/treatments increasing dopaminergic activity.<sup>8</sup> Antipsychotic agents are considered the most effective agents to treat delusional parasitosis and high remission rates may be achieved, although this may often be precluded by patient rejection and non-compliance.<sup>1</sup> In the study published by Rodríguez-Alonso et al. in this journal, only a minority of patients (8/20, 40%) had received some form of psychopharmaceutical treatment. An approach involving combined assessment clinics including infectious diseases, dermatology and psychiatry specialists has thus been proposed as a successful strategy to improve outcome in patients with this syndrome.<sup>7</sup>

Based on personal experience at our referral unit, management of this syndrome may often be considered stress-evoking and unsatisfactory both for the patient and for the healthcare provider. Patients frequently inherently reject the diagnosis of delusion, refusing to accept psychiatric care and request an escalating number of diagnostic tests and anti-parasitic treatments, often achieving this by seeking medical assessments from specialists at multiple health centres. This was also observed in the current series, where patients were reported to have consulted a median of three, with a maximum of seven, times with other specialties and 40% were lost to follow-up.<sup>7</sup> In the practice of medicine it may often be easier to diagnose an objective and tangible disease than to convince a patient that no demonstrable organic pathology can be found to explain the perceived symptoms and signs. A direct confrontation between patient and care provider may thus ensue, leading to a loss of confidence and breakdown in the doctor–patient relationship with the consequent self-discharge of the patient who will seek other opinions. With recent technological advances and the expansion of global communication systems, the delusions presented may also be more sophisticated and elaborate. Patients may traditionally have provided only physical “evidence” of infestation (“matchbox sign”), whereas currently the healthcare provider may be faced with an extensive photographic compilation (acquisition of which is facilitated by mobile phone cameras and applications), information from Internet sites and even bibliographic citations which serve to reinforce the patient's delusion and hinder insight.

Delusional parasitosis may be an unrecognized entity and raising awareness of this disorder is necessary as the personal and social impact of underdiagnosis may be considerable. Delays in

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diagnosis and treatment have been associated with significantly less favourable clinical outcomes.<sup>9</sup> An important proportion of patients with delusional infestation (up to 70–80% in some series) have multiple coexisting or underlying psychiatric disorders which may hinder management further.<sup>5,7,10</sup> In the current retrospective series, the majority of patients (70%) were also found to have some psychiatric disorder.<sup>7</sup> Personal suffering may be complicated by distressing forms of shared delusional infestation such as folie à deux (up to 26% of patients with delusional infestation report similar symptoms in a close relative), folie à famille (involving multiple closely related patients) or delusional parasitosis by proxy, where secondary patients, including minors, may be harmed.<sup>5,11</sup> Self-diagnosis and treatment, facilitated by the Internet, may also contribute to the underdiagnosis of this disorder as well as putting patients at risk of drug toxicity with serious consequences.<sup>12</sup> Although patients can function normally in their daily lives despite the presence of this delusion, many report disability attributable to their delusional symptoms.<sup>5,7</sup>

As highlighted by Rodríguez-Alonso et al., enhanced awareness of this disease and a multidisciplinary management may eventually contribute to an improved outcome for these patients.

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