

The plague: a case of delusional infestation with folie à deux

A praga: um caso de delírio de infestação com folie à deux

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Abstract

Folie à deux or Shared psychotic disorder (SPD) is a rare condition characterized by shared psychotic symptoms between two or more individuals. Delusional parasitosis (DP) is an uncommon psychiatric illness in that patients believe they are infested by insects, without evidence to support this belief. DP occurs in 5–15% of SPD. We report a case of cutaneous DP with SPD between an elderly mother and a daughter that lived together and withdrew from other social contacts for the last three years. We aim to highlight the relationship between SPD and DP, its prognosis, and clinical implications.

Keywords: Shared Psychotic Disorder ; Folie à deux ; Delusional Infestation; Delusional Parasitosis.

Resumo

Folie à deux ou Perturbação Psicótica Compartilhada (PPC) é uma condição rara caracterizada por sintomas psicóticos compartilhados entre dois ou mais indivíduos. O delírio parasitário (DP) é uma doença psiquiátrica incomum em que os pacientes acreditam estar infestados por insetos, sem evidências que sustentem essa crença. O DP ocorre em 5 a 15% das PPC. Relatamos um caso de um DP cutâneo com PPC entre uma mãe idosa e uma filha que viviam juntas e afastadas de outros contatos sociais nos últimos três anos. O nosso objetivo é destacar a relação entre PPC e o DP, o seu prognóstico e implicações clínicas.

Palavras-chave: Perturbação Psicótica Compartilhada; Folie à deux; Delírio de Infestação Delírio parasitário.

INTRODUCTION

The term folie à deux was first described by Lasègue and Falret in 1877 (1). Folie à deux (FAD) or Shared Psychotic Disorder (SPD) is a rare psychiatric illness characterized by the sharing of psychotic symptoms, mainly delusions, between two or more individuals (1,2). Risk factors include longstanding social isolation, strong emotional connection, cognitive impairment, and passive personality of the secondary patient^{1,2}.

Delusional parasitosis (DP) or infestation was described in 1845 by Wilson and Miller as an uncommon condition characterized by the single delusional system in that one is infested with insects despite medical evidence against it³. DP is nowadays divided into three sub-groups: primary (in 40% of patients, it arises spontaneously), secondary to another psychiatric condition (such as dementia or psychosis), and secondary to a medical illness, medication, or substance abuse^{4,5}. In 5–15% of cases, close relatives experience similar delusions; this phenomenon is known as shared psychotic disorder – delusional parasitosis with folie à deux⁵.

Individuals with DP frequently recognize a preceding event such as an insect bite, travel, clothes, or contact with an infected

person; such events may lead the individual to misattribute symptoms⁶. Nearly any marking on the skin or small object found on the individual or their clothing is compulsively gathered such as "evidence" to present to medical professionals. This presentation is called the "matchbox sign", "Ziploc bag sign" or "specimen sign" because it is frequently presented in a small container^{5,6}. This sign is present in five to eight out of every ten patients⁶. Similar is a "digital specimen sign", in which collections of photographs are collected⁶.

With our case report, we aim to highlight the relationship between folie à deux and delusional infestation, its prognosis, and clinical implications.

CASE REPORT

We report a case of shared delusional parasitic infestation between mother and daughter, who lived together and withdrawn from other social contacts for at least three years before hospital admission. This period, marked by behaviors such as progressive medical care seeking, recurrent use of disinfection services, and conflicts with neighbors and public

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health authorities led to important functional impairment.

Daughter

The inducer patient, or the one who transmitted delusion of infestation, is a 55-year-old divorced woman with no children, holder of an economy master's degree. Although she had previously worked as Chief Financial Officer at an oil company since she was thirty years old, she has been unemployed for the last five years after her dismissal from the job. She was living by herself in Norway for many years but decided to move back to her mother's home in Portugal about three years ago, given that she was not working anymore and her mother was aging. Past medical and surgical history is irrelevant, and there is no current or past substance abuse. Personality assessment highlights paranoid and obsessive traits such as unrelenting mistrust and suspicion of others, extreme perfectionism, and the need to impose her standards on those around her. There was no previous family history of psychiatric or medical disorders.

Over the last three years, under the complaint of an ongoing plague infestation, she hired two different pest control companies that performed eight cycles of disinfection in the apartment where she was living with her mother. Never pleased with the results, even after many official reports stating that there was no sign of insects or any other potential health threat in the apartment, she insisted on the need for further cleaning and inspection. She also appealed to multiple public entities, including the National President, to whom she addressed letters exposing the case and requesting intervention.

Feeling desperate and helpless against this threat, the patient and her mother decided to throw away some furniture, mattresses, and clothes, hoping that they could get rid of the alleged insects. From then on, they decided they would sleep on a yoga mat, wear rain boots, and heat/freeze all fabrics in the house to "kill the bugs". The remaining of their belongings were kept wrapped in plastic bags to avoid contamination.

During one of the disinfections, they stayed at a hotel where they also claimed to have found the same bug types.

Concomitantly they were seen multiple times by their general practitioner complaining about skin lesions and itching sensations in different body parts. They requested written reports of the findings to obtain documental proof, but no concrete affection of the skin or parasite sign was ever confirmed during multiple physical examinations.

Their doctor, along with the public health authorities, finally mandated the urgent observation of the daughter at Department of Psychiatry of tertiary university hospital in Lisbon, Portugal. The clinical interview evidenced the paranoid and infestation delusions with superficial cenesthetic hallucinations. She presented the "digital specimen sign" showing multiple photographs collected of the alleged bed bugs and skin lesions. Because of their lack of insight and refusal of treatment, her

admission was compulsory.

After admission and during the first family interview, her mother, who presented with similar psychotic symptoms, was also subject to compulsory hospitalization. As usually recommended for inpatient treatment of patients with shared delusional disorder, they were hospitalized in separate bed wards.

During clinical interviews, both patients mentioned that the daughter was the first to realize that there was an ongoing infestation in their home, and soon after, her mother confirmed these suspicions.

A further psychiatric evaluation revealed shared persecutory delusions towards their brother/son, whom they accused of being responsible for the intentional home spread of the bugs aiming to harm them. They explained that based on this suspicion and to prevent further invasion of their property, they installed an armored door. Furthermore, they were both convinced that the daughter's house in Norway had also been subjected to infestation perpetrated by him.

Physical and neurologic examinations and laboratory tests, including drug screen toxicology (opioids, cannabis, cocaine, amphetamines) and HIV, hepatitis B and C serologies, Cranial Computed Tomography (CAT scan), Cranial magnetic resonance imaging (MRI) of the daughter were unremarkable. The neuropsychological assessment revealed executive function deficits (moderate deficits in problem-solving, planning and divided attention).

The delusional infestation was understood as a symptom of Schizophrenia. Antipsychotic therapy with risperidone (up to 10 mg/day), followed by haloperidol (up to 15 mg/day) was not successful (no response after six weeks of treatment each). Partial remission was finally achieved with clozapine titrated to 200 mg/d combined with aripiprazole long-acting injection of 400 mg/monthly. Due to the lack of insight and risk of medication non-compliance, a combination of oral and long-acting injectable antipsychotics was preferred to reduce relapse likelihood.

Mother

The mother is a 77-year-old widow for twenty years. The patient has a high school degree, and because she had a high inheritance. Past medical and surgical histories were unremarkable and there is was no current or past substance abuse. Personality assessment revealed traits of submissiveness and dependency, marked by lifelong difficulty in making decisions and being alone. She maintained the ability to carry out activities of daily living but relied on her daughter to manage her bills.

The cranial MRI showed mild frontal and temporal atrophy. Physical and neurologic examinations and HIV, hepatitis B and C serologies were unremarkable. A neuropsychological evaluation revealed marked impairment of sustained and

divided attention, episodic memory, and associative learning. The delusional infestation was understood as a manifestation of a shared psychotic disorder in association with Mild Cognitive Disorder⁶. Partial remission of the psychotic symptoms was achieved with risperidone 4 mg/d.

Outpatient follow-up

The psychotic symptoms of both patients progressively remitted mostly after returning home while under antipsychotic treatment, but insight remains partial. They also ceased to seek medical attention or disinfection services.

Ongoing follow-up of the mother has been showing adherence to the regular appointments and apparent therapeutic compliance. The daughter returned to Norway six months after the release and then was lost from follow-up.

DISCUSSION

Prolonged social isolation is reported to be the most important

factor predisposing to the development of folie à deux which was the case for our patients (8). The most frequent psychiatric conditions found in the primary patient are schizophrenia, delusional and affective disorders. In the induced patient, cognitive impairment and mental retardation are frequently present⁸. DP occurs mostly in women after middle age⁹.

Our report represents the classic picture described by Lasegue and Falret of folie imposée¹. For the primary patient, we admitted a case of Schizophrenia (ICD-11)⁷ given the accompanying features of paranoid delusional ideas, cenesthetic hallucinations, executive function deficits, and functional impairment, namely at her previous top-level employment, which led to her dismissal. As for the induced patient, we consider her Mild Cognitive Impairment, along with her dependent traits, to be major contributors to the development of the clinical picture (ICD-11)⁷.

Many years after its first description, FAD remains an interesting and challenging disorder to psychiatrists, especially regarding its pathophysiology and treatment.

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