



## Case Report

# Delusional Jealousy: How Can Treatment be Improved? A Case Report



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### ABSTRACT

**Introduction:** Although delusional jealousy accounts for merely 10% of delusional disorders, it is associated to risk of serious violence and suicide. With this clinical case, we intend to explore the difficulties in the pharmacological approach of delusional jealousy disorder and to summarise the most recent findings in the treatment of this condition.

**Methods:** Case report.

**Case presentation:** A 76-year-old man involuntarily admitted to a psychiatric ward due to threats of physical aggression to his wife in the context of irreducible ideas of her infidelity. Initially, we observed an improvement of symptomatology with risperidone and its long-acting injectable formulation, but the emergence of hypotensive side effects required the off-label use of paliperidone palmitate 50 mg/ml.

**Conclusions:** Few studies, mainly case reports, look at the specific treatment of delusional jealousy. Given the negative consequences for patients and for their spouses, better scientific evidence to treat this condition is needed.

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### Delirio celotípico: ¿cómo se puede mejorar el tratamiento? Un reporte de caso

### RESUMEN

**Introducción:** Aunque el delirio celotípico represente solo cerca del 10% de los trastornos delirantes, se asocia un riesgo de violencia grave y suicidio. Con este caso clínico se pretende explorar las dificultades en el tratamiento farmacológico del trastorno de delirio celotípico y resumir los hallazgos más recientes en el tratamiento de esta enfermedad.

**Métodos:** Reporte de caso.

**Presentación del caso:** Un varón de 76 años tuvo un ingreso involuntario en el departamento de psiquiatría debido a amenazas de agresión física a su esposa en el contexto de ideas irreductibles de su infidelidad. Inicialmente se observó una mejoría de los síntomas con

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risperidona y su formulación inyectable de acción prolongada, pero la aparición de efectos secundarios hipotensivos requirió la prescripción *off-label* de palmitato de paliperidona 50 mg/ml.

**Conclusiones:** Pocos estudios, principalmente reportes de casos, abordan el tratamiento específico del delirio celotípico. Dadas las consecuencias negativas para los pacientes y sus cónyuges, se necesita una mejor evidencia científica para el tratamiento de esta enfermedad.

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## Introduction

Delusional jealousy, also known as Othello syndrome, arises intuitively and is fortified by pathological interpretations, fabrications, and altered memories, forming a strong ideoaffective system of jealousy.<sup>1</sup>

Two factors maintain jealousy: the idea of infidelity (triggered by partner's behaviour) and an individual emotional predisposition linked to personality traits (paranoid, or borderline) or concomitant psychiatric disorder.<sup>2</sup>

Delusional jealousy is a subtype of delusional disorder in the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition, as well as is in the International Classification of Diseases, 10th Revision.<sup>3,4</sup>

The available data suggests the role of altered dopaminergic activity in frontostriatal circuits and insula, as well as disturbance of reward processing and self-related processing of feelings of jealousy.<sup>2</sup>

Statistics on prevalence are difficult to obtain because these patients rarely seek help from a mental health professional. It accounted for 11% of all delusional disorders in a large-scale community sample<sup>5</sup> and 8.1% in a hospital outpatient case series.<sup>6</sup> There is a higher prevalence in men, the age of onset is usually middle or late adulthood and there is frequent comorbidity with mood disorders, alcohol abuse and organic brain syndromes.<sup>1,7</sup>

With this clinical case, we explore the difficulties in the pharmacological approach of delusional jealousy disorder and summarize the most recent findings in the treatment of this condition.

## Clinical case

The patient consented to the publication of this clinical case. In order to protect confidentiality, we do not reveal information that could easily identify him.

The patient is a 76-year-old man, currently retired and living with his wife.

Until his first admission to the Psychiatric department, the patient had no psychiatric history. Relevant personal medical history included the diagnosis of hypertension, overweight and benign prostatic hyperplasia. He consumed 12 g of alcohol per day and denied (confirmed by his relatives) past or current abuse of substances.

He described himself as not very sociable and careful to trust others.

The patient had an involuntary admission to a psychiatric ward due to threats of physical aggression with an axe to his wife in the context of irreducible ideas of her infidelity. Based on neutral signals in his wife behaviour (small routine changes, to greet a man on the subway or to return home in a co-worker's car) and suspicious feelings, he created the irreducible idea that she was betraying him with several men. His wife referred that since a year ago her husband waited for her when she came home after work, examined her underwear and, sometimes, she saw his car surveilling her workplace.

At admission, all blood tests, including serologies and vitamins, were in the normal range, and the cerebral computed tomography did not show changes. The Montreal cognitive assessment (MoCA) test quoted 27/30.

The patient was treated with risperidone, titrated to 2 mg/day. He showed progressive affective distancing from the delusional content but maintained doubts about his wife's fidelity. As it was not possible to ensure he would continue medication, we prescribed 25 mg/mL long-acting injectable risperidone as ambulatory treatment. The patient was discharged in an ambulatory involuntary treatment regime.

During the first months home, he presented symptomatic episodes of hypotension. We stopped the injectable antipsychotic and slowly introduced oral risperidone. Nine months after discharge, stabilized with risperidone 1 mg, the psychotic symptoms re-emerged. The patient missed an appointment and his wife came to describe his symptoms in the last month: he had become progressively more defiant and refusing to take oral medication, arguing that it made him forget her infidelities. She decided to leave their home, but the patient still called threatening her. After contacting the Public Health department, the patient was again involuntarily admitted to the Psychiatry ward. At admission, beside the delusional ideas, he also presented depressive symptoms, including suicidal ideas, so we introduced sertraline 50 mg.

Considering the long period of stabilization with oral risperidone but the adverse effects with the injectable, we decided to prescribe the risperidone's metabolite, paliperidone.

We did not consider the use of first-generation antipsychotics, given the high risk of extrapyramidal symptoms at the patient's age. We titrated paliperidone to 6 mg and sertraline to 100 mg, and in 3 weeks we observed fewer symptoms. Despite these, he showed no insight for his condition and for the need to take medication. Given the response obtained with paliperidone, we proposed to our Pharmacy commission the *off-label* use (age >65 years old) of paliperidone palmitate 50 mg/mL. It was accepted and the patient completed the first 2 doses as an

inpatient, showing good tolerability. At discharge, the patient was on paliperidone palmitate 50 mg/mL once a month and sertraline 100 mg once a day. He denied depressive symptoms and suicidal ideation.

On follow-up, the patient has been attending all appointments and accepting the injectable antipsychotic. He has been showing euthymic mood and no changes in his behaviour. The MoCA test has been applied every 6 months, presenting scores within the normal range. He does not spontaneously voice delusional ideas. He has not developed insight for his condition but accepts treatment.

Given the patient's age, we have been excluding the presence of extrapyramidal side effects monthly. Due to the patient's cardiovascular risk factors and the side effect profile of paliperidone, we have been monitoring closely blood pressure profile, body weight, glucose and cholesterol levels.

## Discussion

We present a classic case of delusional jealousy, in which the symptoms began in old age. This patient presented typical behaviours: surprise visits, underwear checks and control of partner's activity outside the house. This case also emphasizes the risk of violence. Delusional jealousy is highly associated with forensic psychiatry entanglement due to threats and attacks to spouses.<sup>7</sup> Also 20% of morbidly jealous individuals attempt suicide.<sup>2</sup>

Before starting treatment, it is necessary to exclude the presence of substance abuse or a neurodegenerative disorder. Treatment should be guided by the patient's level of distress and the risk to him and his partner.

Few studies, mainly case reports, approach the specific treatment of delusional jealousy. We found no randomized control trials in our search, as it is almost impossible to recruit patients with such psychopathology.

Generally antipsychotics (AP) are the treatment of choice for delusional disorders (DD).<sup>8</sup> Muñoz-Negro et al. found that AP achieved a good response in 33.6% of the patients and, in this review, first generation antipsychotics showed significant superiority compared to second generation ones.<sup>9</sup> Recently these authors replied the results, although the most used AP for DD were risperidone and olanzapine.<sup>10</sup> The neuroleptic pimozide has historically been recommended for the management of delusional jealousy,<sup>11</sup> although it does not seem to provide any advantage in most DD subtypes.<sup>9</sup>

We found no reports concerning the specific use of long acting injectable (LAI) AP in delusional jealousy. An observational study from Spain provided 45 patients with different subtypes of DD, and found that patients treated with LAI (risperidone or paliperidone palmitate) showed lower scores in the PANSS-negative subscale when compared with patients treated with oral antipsychotics.<sup>12</sup>

Liu et al. in their study found that adding antidepressants to AP led to a higher rate of response, although statistically insignificant.<sup>13</sup>

As cognitive behavioural therapy showed positive effect for DD it may be an option in selected cases of delusional jealousy, as well as psychoeducation.<sup>10,14,15</sup> There is also evidence for couple therapy and dynamic psychotherapy (better results for

personality disorders with borderline and paranoid traits). It is also relevant to monitor outcomes from partners during the follow-up and home visits can be scheduled.<sup>2,14</sup>

The management strategy may also need the temporary separation of the couple to complement the biological treatment, which can require the intervention of social workers and/or an involuntary admission.

Finally, early recognition, not only in psychiatry services but also at the community (local authorities and primary health services), is essential for improving prognosis.<sup>15</sup>

## Conclusions

Delusional jealousy can cause enormous distress to both partners in a relationship, and is associated with a high risk of severe violence and suicide.

Well-designed prospective studies are needed to guide treatment and to evaluate the role of LAI AP. Our clinical case shows that, even in advanced age, the benefits of LAI AP can outweigh the risks in DD. Psychosocial measures are also fundamental to provide continuous support for both patient and spouse.

## Conflict of interests

None declared.

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