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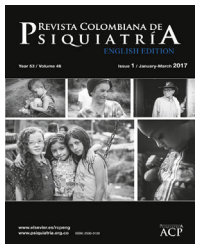

Original article

Coexistence of different delusional misidentification syndromes in clinical practice: A case series

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ABSTRACT

Objective: The objective of this study is to analyse the coexistence of several delusional misidentification syndromes in a clinical sample.
Methods: Over one year, a sample of six patients presenting two or more types of delusional misidentification syndromes was selected. All these patients were admitted to the psychiatric inpatient unit of a Spanish hospital.
Results: Despite the different diagnoses, the patients included presented different types of delusional misidentification syndromes, both hyperidentification and hypoidentification. Antipsychotic treatment was not very effective against these delusional misidentification syndromes.
Conclusions: The coexistence of several delusional misidentification syndromes indicates that the aetiopathogenesis of the different types is similar. It is a field with important clinical implications, due to the poor response to treatment, as well as the possible medico-legal implications.

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Coexistencia de distintos síndromes de falsos reconocimientos delirantes en la práctica clínica: serie de casos

Palabras clave:
Capgras
Reconocimientos delirantes
Fregoli
Neuropsiquiatría
Psicosis
Esquizofrenia

RESUMEN

Objetivo: El objetivo de este estudio es analizar la coexistencia de varios síndromes de falsos reconocimientos delirantes en una muestra clínica.
Métodos: A lo largo de 1 año, se seleccionó una muestra de 6 pacientes con 2 o más tipos de falsos reconocimientos delirantes durante el mismo episodio. Todos ellos se encontraban hospitalizados en la unidad de hospitalización psiquiátrica en un hospital de España.
Resultados: A pesar de los distintos diagnósticos, los pacientes incluidos presentaban diferentes tipos de falsos reconocimientos delirantes, tanto de hiperidentificación como de hipoidentificación. El tratamiento antipsicótico fue escasamente eficaz contra estos síndromes de falsos reconocimientos delirantes.
Conclusiones: La coexistencia de varios síndromes de falsos reconocimientos delirantes indica que la etiopatogenia de los distintos tipos es similar. Se trata de un campo con importantes implicaciones tanto clínicas, por la baja respuesta al tratamiento, como las posibles médico-legales.

Introduction

Delusional misidentification syndrome (DRF) causes complex psychotic symptoms in which patients confuse the identity of people previously known to them even though they sometimes physically recognise them. These phenomena cover a broad spectrum of disorders in which, in addition to people, animals, objects, or places can be confused.[1] In Capgras Syndrome, the most common and well-known of the DRF,[2,3] the patient has the delusion that a friend, spouse, parent or other close family member (or pet) is replaced by a physically identical imposter. Since Joseph Capgras first described Capgras syndrome in 1932,[4] four other types of DRF have been characterised. In Fregoli Syndrome, the patient maintains the delusional belief that different people are actually a single person who changes appearance or is disguised. Reduplicative paramnesia is the delusional belief that a place or location has been duplicated and exists in two or more places simultaneously or that it has been ïrelocatedïsomewhere else. In intermetamorphosis syndrome the patient believes that they can see a person transform into someone else, both in external appearance and internal personality. Lastly, in the syndrome of subjective doubles, the patient maintains the delusional belief of having a double or a *doppelgänger* ("walking double") with the same physical appearance, but who usually has different personality traits and leads a life of their own.

DRF can occur as a result of a wide variety of medical conditions.[2,5–9] They can also be a consequence of mental disorders such as affective disorders or schizophrenia, where they have been described more frequently.[2,10] Although some authors have speculated that DRF may be more common than described,[1,2] their epidemiology and aetiology remain uncertain. This underestimation may be due to the fact that, on occasion, different DRF can coexist or appear overlapping in the same patient.[8,12,13]

This article aims to present six clinical cases in which the coexistence of more than one DRF was observed in the same patient during the same psychotic episode.

Methods

During 1 year, 6 patients hospitalized in the Short Hospitalization Unit of the Fundación Jiménez Díaz University Hospital (Madrid, Spain) presented psychotic symptoms with the coexistence of different DRFs since 2 or more DRFs appeared overlapping in the same patient during the time of hospitalization. The six selected patients were over 18 years of age and were given different DMS-5 diagnoses at discharge.[14] On admission, a complete medical study was performed, with brain images of each case making it possible to rule out medical or neuroanatomical conditions as a cause of the DRF.

The six patients or their legal guardians gave their consent for the preparation and publication of this work. Anonymity was also assured.

Results

The main characteristics of the six patients presented are shown in Table 1.

Case 1

Patient A. was a 30-year-old woman with a history of brief psychotic disorder 298.8 (F23) and depressive episodes which did not require psychiatric hospitalisation. She consulted the emergency department due to manic symptoms and delusional ideation. During admission, Fregoli syndrome was observed, as the patient stated that her uncle was also hospitalised. She went on to describe the admissions unit as a "*Truman Show*", where patients and staff were dressed up

Table 1 – Summary of the main characteristics of the cases.

	Age (years)	Gender	[0,4-5]DRF		Improvement of DRF with AP treatment	Diagnosis at discharge
			Hyper-identification	Hypo-identification		
Case 1	30	Female	Fregoli Intermetamorphosis	—	No	Bipolar I disorder, manic episode with psychotic symptoms
Case 2	39	Male	Fregoli Intermetamorphosis Reduplicative paramnesia	—	No	Schizophrenia
Case 3	18	Male	Fregoli	Capgras	Yes	Schizophrenia spectrum and other psychotic disorders
Case 4	52	Female	Fregoli Fregoli for objects Reduplicative paramnesia	—	No	Delusional disorder
Case 5	39	Female	Fregoli	Capgras	No	*Schizophrenia*
Case 6	65	Female	Fregoli Fregoli for objects	Capgras	Yes	Schizophrenia spectrum and other psychotic disorders

AP: antipsychotic; DRF: delusional misidentification syndrome.

in costumes and were acting out a role to mock her. She also had intermetamorphosis syndrome, as she believed that the people around her were swapping their physical and mental identities, "People here know me, they're disguising themselves... The blonde boy who first pretended to be my uncle is now pretending to be the first psychiatrist who treated me in another hospital... A haematologist I know is pretending to be a lawyer here...". Initial hyperthymia, expansiveness and insomnia improved with psychopharmacological treatment. However, the DRF and other delusional ideas persisted. The diagnosis at discharge was bipolar I disorder, manic episode with psychotic symptoms, 296.44 (F31.2).

Case 2

Patient B. was a 39-year-old man with long-standing paranoid schizophrenia and multiple relapses due to poor adherence to treatment. He went to the emergency department because of behavioural alterations, aggression, incoherent speech, soliloquies and auditory hallucinations. During his admission, Fregoli syndrome was observed, as he identified family members (his father and uncle) disguised as patients. A delusion of intermetamorphosis was also observed, with the patient believing that other admitted patients were swapping their identities, "David was fat when he went out yesterday, and now he's come back as a woman who's typing on the computer at the nurse's station". Patient B. also seemed to have reduplicative paramnesia, as he stated that the city of Madrid was actually Barcelona, where he lived before moving to Madrid. The DRF and other delusions persisted despite antipsychotic treatment, while other psychotic symptoms improved. Behavioural alterations and initial affective repercussion also improved. The diagnosis at discharge was schizophrenia, 295.90 (F20.9).

Case 3

Patient C. was an 18-year-old male with no medical or psychiatric history, except for active cannabis use (6 joints per day). He was brought to the emergency department by his mother because of unmotivated laughter, auditory hallucinations, insomnia and thought insertion phenomena. On arrival he was uncooperative, suspicious and blocked. During his admission, Capgras' delirium was observed, with C. explaining that his mother had been replaced by an imposter, although he recognised her physically, "People here are looking at me. My mother is strange, she's changed... Although it seems like her, I don't think it is her anymore and I don't know why". He also had Fregoli syndrome, as he believed that his ex-girlfriend was also admitted to the admissions unit disguised as a patient. In this case, all symptoms, including Capgras and Fregoli phenomena, improved with antipsychotic treatment during his stay in hospital. The diagnosis at discharge was schizophrenia spectrum and other psychotic disorders, 298.9 (F29).

Case 4

Patient D. was a 52-year-old woman with no psychiatric history who came to the emergency department accompanied by her husband with a condition consisting of restlessness, irritability, a tendency to social withdrawal, a hostile and distrustful attitude, insomnia, auditory hallucinations, and self-referential and harmful ideas. During her admission, Fregoli syndrome was identified, with D. believing that there were people from her work also in hospital "playing a role" or disguised as patients in the admissions unit. Furthermore, D. explained that days before her admission to the hospital something strange had happened at work, "The reports were duplicates, there were reports that I had already read,

but somehow they disappeared from the computer and were replaced by others that I'd already seen". These symptoms were consistent with a Fregoli syndrome for objects and reduplicative paramnesia. In this case, both the DRF and the rest of the delusional symptoms persisted despite antipsychotic treatment, while the initial irritability and emotional impact improved. The diagnosis at discharge was delusional disorder, 297.1 (F24).

Case 5

Patient E. was a 39-year-old woman with paranoid schizophrenia diagnosed eight years earlier, with multiple relapses due to poor adherence to treatment. On arrival at the emergency department, she had an uncooperative and distrustful attitude, with selective mutism and a tendency toward aggression. Her father reported that E. had stopped treatment a year before and described E.'s aggressive behaviour towards him in recent days. During her admission, both Capgras and Fregoli syndromes were observed. On the one hand, E. believed that her family and even people on the street had been replaced by robots which were spying on her. On the other, E. wrongly identified another admitted patient as an old friend from her neighbourhood and the treating psychiatrist as her sister, and claimed that both played a role in the admissions unit. DRFs persisted despite antipsychotic treatment, while behavioural improvement was observed. The diagnosis at discharge was schizophrenia 295.90 (F20.9).

Case 6

Patient F. was a 65-year-old woman with no psychiatric history brought to the emergency department by her mother after spending a week on holiday in Malaga. On arrival, she had self-referential ideas and prejudice, altered behaviour, limited speech and a suspicious attitude. During her admission, F. believed she was in a parallel reality. She explained that her father had paid actors to impersonate bus drivers, police officers and other street people to prevent her from leaving Malaga (Fregoli syndrome). She also believed that her father had the ability to swap buildings. For this reason, he was able to recognise buildings from Malaga in Madrid (Fregoli syndrome for objects). In addition, she had Capgras syndrome, believing that her mother had been impersonated by an imposter who intended to kill her father. The DRF and psychotic symptoms improved with antipsychotic treatment. The diagnosis at discharge was schizophrenia spectrum and other psychotic disorders, 298.9 (F29).

Discussion

DRF are rare psychopathological phenomena which share the classic theme of a person being replaced by a double or transformed into another. Christodoulou et al. classified DRF into two groups, hypo-identification and hyper-identification syndromes, according to the absence or excessive presence, respectively of the sense of familiarity.[13] Capgras syndrome is classified as a hypo-identification syndrome, while the other types (Fregoli syndrome, intermetamorphosis, reduplicative paramnesia and subjective doubles syndrome) are considered hyper-identification syndromes. In a psychotic episode different symptoms, such as suspicion, behavioural alterations or sensory-perceptive alterations, can appear simultaneously. However, while such symptoms are often explored separately, the coexistence of different DRF is generally overlooked.[15,16] The coexistence of hypo-identification and hyper-identification syndromes in the same patient is considered rare.[13] However, in our sample, we found that DRF tended to cluster, and three of the six reported cases (50%) even had both syndromes simultaneously.

Different theories have been put forward about the origin of DRF.[17–19] However, the neuropathology of these unusual phenomena is still not fully understood.[2,8,20–23] Darby et al. proposed a novel explanation based on the inability to link the perceptions generated in response to external stimuli with activated internal autobiographical memories.[1,6] There is also some neuroanatomical evidence that points to this disconnection in patients with focal brain lesions.[22] Capgras syndrome (hypo-identification) would appear when the perception of the external object does not trigger the corresponding autobiographical memories, which will lead the patient to maintain the mistaken belief that a family member has been replaced by an impostor. In contrast, in hyper-identification syndromes, such as Fregoli syndrome, identities generated inappropriately from autobiographical memory due to external stimuli (person, object or place) will lead the patient to believe that the external object is the familiar identity in disguise.[1,24] This hypothesis would therefore explain the coexistence of hypo-identification and hyper-identification syndromes in the same patient. This co-occurrence also indicates that these syndromes share a similar pathogenesis.[6,25]

DRF have in common a poor response to antipsychotic treatments.[26] In our sample, four of the six patients were discharged despite the persistence of the DRF.

DRF can sometimes trigger violent behaviour, with legal consequences and adverse outcomes.[8,10,11,27] None of the patients presented here had legal problems, even though aggression towards the misidentified person was common.

In conclusion, DRF and the coexistence of more than one type of DRF in the same patient may be more common than previously believed. DRF can appear in psychiatric disorders, but also in medical and neurological conditions. Therefore, more research is needed to clarify the neuropathogenesis of DRF, in order to provide better treatment options to help improve the quality of life of patients and their families.

Conflicts of interest

The authors declare that they have no competitive interest in the preparation of this work. No external funding was needed to carry out this work.

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