
Letter to the Editor

A RARE MISIDENTIFICATION SYNDROME: SEEING A MONOZYGOTIC TWIN IN THE MIRROR

Dear Editor,

Delusional misidentification syndrome develops in conjunction with other psychiatric and neurologic diseases, and is characterized by an individual's belief that the identity of a person, place, object, or event has somehow been replaced or altered (Bilici et al. 2011). We present an interesting case that represents a novel presentation of delusional misidentification syndrome.

Case

A 67-year-old married, unemployed, primary school-educated (5 years of education) female was born as one of identical twin sisters. The patient did not have any complaints when she was brought to our psychiatry clinic by her son in June 2013; however, her son reported that his mother believed that she could see her identical twin sister in the mirror, and that her identical twin was trapped in the mirror and could not eat or drink.

Three years prior to presentation the patient had undergone spondylolisthesis surgery, after which she developed amnesia. She was diagnosed with Alzheimer's disease and was started on donepezil 10 mg d⁻¹ treatment in March 2012. One month before presenting to our clinic she began reporting

that she saw her identical twin (who lived in a different city) in the mirror, and that she was imprisoned in it and could not eat or drink. She began to eat her meals on table set in front of the mirror and tried to spoon feed her twin in the mirror. No other symptoms of psychosis or depression were noted.

Anamnesis showed that the patient had been diagnosed with hypertension and was treated with cilazapril 1 mg d⁻¹. She had a negative history of smoking, and alcohol and substance abuse, and her family psychiatric history was unremarkable. Psychiatric examination showed she had short-term memory deficit and her Standardized Mini Mental State Examination score was 24 (orientation: 8 points; recording memory: 3 points; attention and calculation: 5 points; recall: 1 point; language: 7 points). Cranial MRI showed diffuse cerebral and cerebellar atrophy, and secondary to atrophy volume extension in all cisternal structures, the third and both lateral ventricles, the hemispheric sulcus, and cerebellar folia.

Based on the findings, she was diagnosed as dementia and delusional misidentification syndrome, and quetiapine 25 mg d⁻¹ was started. The patient was evaluated via weekly clinical follow-up, and after the first month of treatment the delusion of misidentification was resolved. As of January 2014 the patient did not have any recurrence of psychotic symptoms.

DISCUSSION

Delusional misidentification syndrome is an umbrella term that includes Capgras, Fregoli, intermetamorphosis, Cotard's, and twin syndromes (Christodoulou and Malliara-Loulakaki 1981). The presented case reported seeing her identical twin in the mirror, which we considered to be a subgroup of mirror

sign, which has been described as a sub-form of delusional misidentification syndrome (Cipriani et al. 2013), but to the best of our knowledge the present case report is the first to describe the delusion of seeing an identical twin (that actually exists) in the mirror.

In all, 25%-40% of delusional misidentification syndrome cases are associated with an underlying organic condition, such as trauma, tumor, cerebrovascular disease, multiple myeloma, and multiple sclerosis (Edelstyn and Oyebode 1999). It was reported that unilateral right hemispheric brain lesions are more often associated with delusional misidentification syndromes (Joseph 2007). It is thought that the right hemisphere is responsible for pursuit and attention directed towards the environment. In the presence of right hemispheric lesions environmental stimuli may be misinterpreted, which may result in delusional misidentification syndrome (Edelstyn et al. 1998). In some cases it is emphasized that diffuse cerebral atrophy and right hemispheric lesions create a double-hit serial that cause delusions (Levine and Grek 1984). In the presented case cranial MRI showed diffuse cerebral atrophy and cognitive testing indicated dementia, whereas right hemispheric lesions were not observed.

It was proposed that the visual system involves a tract connected to the visual cortex and a functional tract that is connected to the limbic system, which attributes affective meaning to visual stimuli (Edelstyn et al. 1998). Pathology in delusional misidentification syndrome is thought to be associated with the meanings attributed to visual stimuli rather than to the visual stimuli themselves; therefore, delusional misidentification is the result of disconnection between the visual tract and limbic system (Edelstyn et al. 1998).

The perception that people, places, or objects are strange or altered is something that anyone might experience; as such, misperception might constitute a spectrum in which déjà vu and delusional misidentification syndrome are on opposite ends (Sno 1994). It is important for clinicians to be aware that this over-valued spectrum of thoughts and delusions can vary in presentation.

In the treatment of psychotic symptoms accompanying dementia the provision of information to patients' relatives, and

providing a safe environment for the patient and behavioral therapy should always accompany medical treatment (Conn and Thorpe 2007). Quetiapine (25-100 mg d⁻¹), olanzapine (2.5-5.0 mg d⁻¹), and risperidone (0.5-1.0 mg d⁻¹) are used in lower dose for medical treatment (Masand and Narasimhan 2006). In the presented case the patient responded well to quetiapine treatment.

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