

## Shared Psychotic Disorder in Monozygotic Twins: A Case of Schizophrenia

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### Abstract

### Case Report

**Background:** Shared psychotic disorder, also known as folie à deux, is a rare condition in which two individuals, often emotionally close family members, share common delusions. This disorder typically involves one individual transmitting their delusion to another. It is particularly interesting when observed in monozygotic twins, who share an identical genetic background and often have emotionally fusion-like relationships. **Case Presentation:** This article presents a clinical case of folie à deux in homozygous twins, both diagnosed with schizophrenia. Patient A developed an initial psychotic breakdown with persecutory and megalomaniac delusions. Patient B, after a brief period of observing her sister's delusions, developed a similar delusional syndrome. Both patients were treated with atypical neuroleptics, and Patient B showed significant improvement after separation, while Patient A's symptoms persisted. **Discussion:** This case highlights the role of genetic predisposition and emotional bonds in the development of shared psychotic disorder. It is suggested that genetic factors, especially in monozygotic twins, play a crucial role in the shared psychotic disorder, while relational dynamics and emotional attachment, such as the fusion-like relationship between the twins, can facilitate the transmission of delusions. The case also compares the observed symptoms to other similar cases in the literature, reinforcing the simultaneous folie theory. **Conclusion:** The case demonstrates the importance of therapeutic separation and pharmacotherapy in managing shared psychotic disorder. The improvement in Patient B after separation, combined with the appropriate use of atypical antipsychotics, suggests that a combination of treatment approaches is necessary for the successful management of folie à deux in genetically predisposed individuals.

**Keywords:** Shared Psychotic Disorder, Folie À Deux, Schizophrenia, Monozygotic Twins, Delusions, Therapeutic Separation, Atypical Neuroleptics, Emotional Relationships, Genetic Predisposition, Psychosis.

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## 1. INTRODUCTION

Shared psychotic disorder, or folie à deux, is a rare phenomenon in which two individuals, often family members, share a common delusion. This disorder, belonging to the group of delusional disorders, typically occurs in people who are emotionally close, such as spouses or family members, and may result from one individual transmitting their delusion to another. Although this disorder has been widely documented in the past, it remains a relevant area of study in psychiatry due to its complex mechanisms, particularly the interpersonal relationship and genetic factors that influence its onset.

Monozygotic twins, having identical genetic backgrounds and often fusion-like emotional relationships, provide a unique group for studying this phenomenon. This article presents a clinical case of folie à deux in homozygous twins, both diagnosed with schizophrenia. We will analyze the clinical and

therapeutic aspects of this case, focusing on the impact of genetic and relational factors.

## 2. History of Shared Psychotic Disorder

The concept of folie à deux was first introduced by Lasègue and Falret in 1877 under the term folie communiquée. They described how a psychotic individual could impose their delusions on a close person, who, initially healthy, would come to adopt the same delusions. Since this initial observation, several clinical forms of folie à deux have been proposed: imposed folie, simultaneous folie, communicated folie, and induced folie.

The evolution of psychiatric classifications has seen the term folie à deux gradually reintegrated into the psychotic disorders category, such as induced delusional disorder (F24 in the ICD-10). Although the DSM-5 no longer recognizes it as a distinct category, it remains important for clinicians, especially in familial cases, to

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identify this phenomenon. Monozygotic twins are particularly interesting to study in this context due to their shared genetic predisposition and the unique relational dynamics often present between them [1, 2].

### 3. CASE PRESENTATION

#### The First Patient

Patient A, aged 20, is a beautician, single, and lives with her parents. She has a twin sister with whom she shares a fusion-like relationship. In November 2021, Patient A was admitted to the psychiatric hospital for initial psychotic decompensation. She exhibited self-aggressive behaviors and physical aggression towards her family, including facial injuries and ocular burns. The symptoms began about two weeks before admission, characterized by a polymorphic delusional syndrome including persecutory ideas, megalomania, and a mystical component. Dissociative symptoms such as unmotivated laughter and soliloquies were also present.

During the interview, the patient was calm, but her speech was incoherent, marked by delusional ideas of persecution, not only towards herself but also towards her sister. She experienced visual hallucinations. She was prescribed amisulpride, an atypical antipsychotic, with a hospitalization of one and a half months, during which a significant improvement was observed.

#### The Second Patient

Patient B, the twin sister of Patient A, developed a simultaneous delusional symptomatology during the same period when her sister was being treated for her psychotic decompensation. After consulting a psychiatrist in private practice, she was prescribed atypical neuroleptics. The evolution of Patient B was marked by the onset of a frank dissociative syndrome, persecutory delusional statements, and visual, auditory, and cenesthetic hallucinations, requiring a three-month hospitalization. The diagnosis of schizophrenia was confirmed, indicating that it was not simply an adoption of her sister's delusional ideas.

Patient B was prescribed aripiprazole, leading to a progressive improvement of her symptoms, although some delusional elements persisted. She was hospitalized for three months before being allowed to leave the hospital in April 2023.

### 4. DISCUSSION

#### 4.1 Genetic Factors and Predisposition to Schizophrenia

Patients A and B share an identical genetic background, which increases their likelihood of developing common psychotic disorders. Monozygotic twins have a high concordance rate for schizophrenia, estimated between 40% and 50% [1]. In this case, although both patients share a similar genetic background, other factors, such as emotional stress and

The significant genetic background of the twins supports the hypothesis of a shared schizophrenia predisposition. Gottesman (1991) noted that a strong genetic predisposition to schizophrenia is common in monozygotic twins, which was confirmed in this case by the concordance of the delusional disorder in both sisters [1].

#### 4.2 Role of Psychosocial and Relational Factors

The fusion-like relationship between the sisters was a key factor in the emergence of shared psychotic disorder. As Incorvaia and Helmes (2006) emphasize, close emotional relationships and social isolation create a fertile ground for the development of shared delusion [2]. The strong emotional bond between the twins allowed Patient A, initially suffering from schizophrenia, to impose her delusion on her sister, who then developed similar symptomatology.

Previous studies, such as those by Galnick (1942) and Arnone *et al.*, (2006), have also shown that in many cases, folie à deux results from relational dynamics, strengthened by environmental factors such as proximity and social isolation [3, 4].

#### 4.3 Comparison with Similar Cases in the Literature

Similar cases of folie à deux in monozygotic twins have been documented in the literature, such as the one reported by Ghasemzadeh *et al.*, (2012), where a manic delusional syndrome developed simultaneously in two twin sisters, which is comparable to our case [5]. A study by Ramonet *et al.*, (2013) also observed that one induced twin showed rapid improvement after separation, in contrast with the other twin who continued to suffer from persistent delusional symptoms, which mirrors our observation [6].

Interestingly, while the dynamics of folie à deux are often classified as imposed folie, where one individual imposes their delusion on the other, cases like ours show that simultaneous delusions can also occur in situations of high emotional and genetic vulnerability, as observed in simultaneous folie à deux. The various clinical forms are well explained in the literature: imposed folie, simultaneous folie, communicated folie, and induced folie [7]. In our case, the similarity of the schizophrenia symptoms in both sisters suggests a form of simultaneous folie, evolving independently but in the context of reciprocal influence.

#### 4.4 Therapeutic Implications

Treatment of folie à deux involves isolating the affected individuals and administering atypical neuroleptics. In this case, the separation of the two sisters and the initiation of medication (amisulpride for Patient A and aripiprazole for Patient B) led to a significant improvement in symptoms, particularly for Patient B,

who showed rapid remission after separation. Atypical antipsychotics, such as aripiprazole and olanzapine, have proven effective in treating delusional symptoms in these patients [4, 5].

## 5. CONCLUSION

The case of Patients A and B highlights the complexity of folie à deux, where the fusion-like relationship between the sisters, combined with a shared genetic predisposition, led to the development of shared delusional disorder progressing into schizophrenia. This case underscores the importance of therapeutic separation and a medication-based approach in managing shared psychotic disorder. Appropriate management of relational dynamics and the use of antipsychotics enabled an improvement in symptoms in Patient B, while Patient A continues to require closer monitoring.

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