Case Report of Shared Psychotic Disorder or ‘Folie a Deux’ in Two Geriatric Sisters

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Abstract
Folie a Deux or shared psychotic disorder is a rare and poorly understood disorder characterized as transfer of delusional beliefs from one person, the primary patient, to another, the secondary patient, who are closely related. The disorder is mainly seen within a family, most often between spouses or between siblings, although it has been noted in other relationships. Females are more likely than males to both primary and secondary partner. We present a case of a 77-year-old female who was admitted for myasthenia gravis exacerbation with a two-day history of generalized weakness, multiple falls, decreased appetite and blurred vision. However, she also described a detailed and implausible story of kidnapping and extortion which, surprisingly, was validated by the patient’s younger sister. Investigation of the story by police and others confirmed it to be false. A diagnosis of shared psychotic disorder was made. The delusions appeared to occur with a rapid onset and resolution. This case highlights the unusual presentation of shared psychotic disorder in two elderly women, well outside the typical age of onset for the disorder as well as its rapid onset and resolution, rather than in the setting of a chronic psychiatric illness such as delusional disorder or schizophrenia.

Introduction
Shared psychotic disorder, also known as “Folie A Deux,” is a rare clinical disorder which was first described by Lasegue and Flare in 1887 and was later divided into four subgroups by Gralnick in 1942. The disorder now includes the divisions of; Folie Imposee, Folie Simultanee, Folie Communiquée, and Folie Induit which are further described in Table 1. The disorder can be described as a transfer of delusional beliefs from one person, the primary patient, to another, the secondary patient. The primary patient is known as the “dominant” or “principle” partner and the secondary patient, who is influenced by the primary patient, is known as “submissive partner” or “associate.” The disorder is mainly presented within families, most commonly between husband and wife, as well as between two siblings. Average age of onset for disorder in both primary and secondary patient is in the adult age group, however may affect any age of population.

Review of literature revealed only 17 cases of shared psychotic disorder in the geriatric population, ages 65 and older. The disorder is more common in females than males for both primary and secondary patients. Primary patients are typically observed to be more intelligent, older, and more aggressive/dominant whereas the secondary patients are generally younger, less intelligent, passive, and dependent. Associated comorbidity in the primary patient

<table>
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<th>Table 1: Classification of 4 folie á deux subtypes</th>
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<tr>
<td>Subtype A – Folie Imposée</td>
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<td>Most common form of folie a deux, in which the inducer is typically dominant, intelligent, forceful, and autonomous. The recipient is typically dependent, submissive, less intelligent, and more passive. Both individual are closely associated and delusions often disappear upon separation.</td>
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<tr>
<td>Subtype B – Folie Simultanée</td>
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<td>Appearance of identical psychosis simultaneous in individual who are closely related and often have genetic link between the two. Folie simultanée has higher prevalence in elderly. Separation of the individual does not subside the symptoms of delusion.</td>
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<td>Subtype C – Folie Communiquée</td>
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<td>Transfer of delusion after a long period of resistance by recipient. Recipient typically develops his or her own delusion, independent of inducer, which typically persist after separation.</td>
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<tr>
<td>Subtype D – Folie Induite</td>
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<td>New delusions acquired by individual with delusion under the influence of another deluded subject.</td>
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includes primary psychotic disorders such as delusional disorder, mood disorder, often with persecutory or grandiose fixations, and schizophrenia. The secondary patient, other than a diagnosis of Shared Psychotic Disorder, typically has no other psychiatric diagnosis. Here, we report a case of shared psychotic disorder in an elderly 77-year-old female with no known previous psychiatric history and her elderly sister in a general medical inpatient setting. The case is notable given the age range of the patients, as well as the short duration of the disorder and that neither patient had a history of chronic psychiatric illness.

Case Presentation
The primary patient was a 77-year-old Caucasian female with a past medical history of myasthenia gravis, paroxysmal atrial fibrillation, chronic obstructive pulmonary disease (COPD), coronary artery disease, hypertension, hyperlipidemia, and gastroesophageal reflux disease. Years of hospital records revealed no history of psychiatric disorder. She was admitted to the hospital with a two-day history of generalized weakness, blurred vision and falls, with a diagnosis of myasthenia gravis exacerbation.

On admission, the patient reported that following a hospital discharge approximately one month earlier for COPD exacerbation, she and sister had temporarily lived with her son, as they were homeless. She reported going to “Heisted House” described as a homeless shelter, to apply for housing with “Mr. J”, however reported being told it would take some days so to wait outside for a ride to go home. While waiting, she reported meeting an old acquaintance who offered them a ride, instead they were blindfolded and brought to a secluded property out of state. The patient reported they were taken into “a complex” called “Care House”, where a nurse told them to sign over their checks, took their belongings and removed their clothing. The patient reported she was pulled by her hair and suffered damage to her scalp. She reported meeting a man at the “complex” who helped them escape. She also reported being taken to another shelter where she was held captive again, interrogated for approximately four hours, was hit in the face repeatedly with a newspaper and pushed into garbage bags. At some point both patient and her sister were freed. At that point, the patient was reportedly quite stressed and was admitted to a psychiatric facility for suicidal ideation per hospital record, but was discharged in two days after being psychiatically cleared, noting that her reported suicidality had “been falsified”. The sisters then moved back in with the son until her current admission. The patient was noted to dominate the conversation while the sister was present. The patient’s sister was also noted to be quieter, younger and less aggressive of the two. Surprisingly, she fully corroborated the patient’s story, even when interviewed away from the patient. Per son both patient and sister were in fact missing four to five days prior to moving back home with him after being discharged from the psychiatric facility. Investigation by police, other agencies and the patient’s son, confirmed the story to be false, however we are unable to corroborate the locations of both patient and sister during those several days they were missing. Although based on the description provided by patient it seemed they were most likely living at a homeless shelter.

On admission vital signs showed blood pressure 160/90, temperature 98.2 F., pulse 70, respiratory rate 18, and O2 saturation 92% on room air. Physical exam was remarkable for severe ptosis bilaterally without exercise, mild limitations with EOMs and diplopia with vertical gaze. There was no breakage of hair was noted where the patient reported her hair was pulled, however there was an area of partial baldness noted. The rest of the physical exam including neurological exam was unrevealing. Head CT without contrast did not demonstrate any acute intracranial process, but did show mild to moderate white matter disease. Chest x-ray showed no evidence for acute cardiopulmonary disease. Complete blood count with differential, complete metabolic panel and urinalysis were within normal limits aside from moderately elevated leukocyte esterase on urinalysis.

Psychiatry consultation was obtained. She was noted to be in clear consciousness, and scored a 30/30 on the Mini-mental status examination (MMSE). Rapid plasma reagin (RPR), Lyme titers, and thyroid tests were within normal limits. Vitamin B12 was low normal at 262. Urine culture was positive for E. Coli and she received a one-time dose of fosfomycin. The psychosis did not change after her UTI was treated. Psychiatry recommended low-dose risperidone at 0.25mg QHS and outpatient psychiatry follow-up. Electroencephalogram (EEG) was recommended which was done on day 6 of inpatient hospitalization which showed mild diffuse background slowing, however EEG study was discontinued midway due to patient compliance.

The patient was treated with pyridostigmine 60 mg TID and prednisone 40mg daily for her...
myasthenia gravis flare. Following improvement in symptoms, the patient was discharged, but did not show for her outpatient psychiatric appointment. Since discharge the patient has presented to the emergency department several times and has been admitted several times for non-psychiatric reasons without any further psychotic symptoms.

Discussion

There is limited literature on the prevalence and incidence of shared psychotic disorder, in part because patients may not seek treatment as they don’t recognize their symptoms as untrue. In this case, it is difficult to be sure of the etiology of the psychosis of the primary patient. The patient’s lengthy, well documented history in the hospital records as well as reports of the son, indicated the patient had no prior psychiatric history. She had been seen many times in the ER for MG or COPD exacerbation. There was no documentation of psychosis in prior admissions. Given how open and spontaneous she was with describing her psychosis, it is likely prior psychosis would have been noted had it been present in prior records. Thus, given the acuteness of the development of this psychosis, it was likely related to medical condition, atypical delirium, medication or encephalopathy.

Possible medical causes for the delirium include her UTI, although her intact cognition, clear consciousness and remaining psychotic symptoms after the treatment of UTI rule against this. However, patients who suffer psychosis from delirium due to a medical cause may continue to believe the delusional event happened, even after the resolution of the delirium because they remember the psychotic symptoms so vividly. Another possibility is an exacerbation of the myasthenia gravis (MG), although MG is rarely associated with psychosis. However, chronic and long standing MG has been linked to psychotic illness in several case reports. Patient also was on pyridostigmine for MG which is known to have adverse event of psychosis. In our case however, psychosis had not been reported prior or after this admission, making it less likely that this psychosis was due to MG or medication. Finally, the patient had multiple vascular risk factors and Head CT revealed small vessel vascular lesions. It is also possible that vascular brain disease, and perhaps a recent small vascular event, could have been associated with the acute onset of the psychosis, although we have no direct evidence supporting this possibility.

Whatever the cause of the primary patient’s psychosis, it was fully believed and accepted by the sister, the secondary patient. Our case is consistent with reported cases in that the secondary patient was less dominant than the primary patient. However, our case is unusual as the onset of shared psychotic disorder is typically more gradual and less rapid than what was seen in our case, where the psychotic illness arose rapidly (within a month) and was quickly adopted by the sister. It is unusual for a delirium psychosis to be adopted by another, as prior cases report the primary patient has a long standing psychiatric illness, and that was not seen in this case.

Another facet of this case that makes it significant is that it occurred in two elderly individuals, well outside of the average age of onset for shared psychotic disorder. A review of 97 cases of shared psychotic disorder in Japan revealed the average age of dominant partner was 38 years old and average age of submissive partner was 36 years old. Another review of 42 cases from 1993-2005 showed the mean age in primary patient was 52.7 and mean age in secondary patient was 45.9. Nevertheless, shared psychotic disorder may present in any age group. To our knowledge, there are only a small number of shared psychotic disorder in the geriatric population reported. A review of literature found only 17 cases of shared psychotic disorder in individuals aged 65 or older. Interestingly the presentation in the geriatric population was similar to presentation in other age groups. Similarities included occurring in those who face isolation, poverty, dependency, presence of disorder mainly within the family and a high rate of persecutory delusions. Differences between geriatric presentation and other age groups was that 8 out 17, or 47% of cases, were classified as the “folie simultanee subtype” where the identical delusion arises at the same time of two genetically related individuals. Our case has features of folie simultanee but also folie impossee, characterized by the dominant primary patient and the younger, more submissive secondary patient.

Conclusion

Overall, our case manifests multiple unique features of shared psychotic disorder. Our case appears to have been of relatively rapid onset and has a strong medical component associated with the psychiatric presentation, something not previously reported in the current literature. As well, our case adds to a very small literature of shared psychotic disorder occurring in elderly persons. Further research
is needed to learn and understand more about this interesting disorder.

Reference