Cotard and Capgras delusions in a patient with bipolar disorder: “I’ll prove, I’m dead!”

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ABSTRACT
Cotard is a syndrome that is characterized by ideas of damnation or rejection, anxious melancholia, insensitivity to pain, and nihilistic delusions concerning one’s own body or existence. It is most often encountered in middle age or older women who are severely depressed. Capgras syndrome is a rare psychiatric disorder with colourful symptoms. The patient believes that the identities of close relatives or friends are not real but are replaced by others. Co-existences of psychiatric and organic diseases with Cotard’s syndrome and Capgras syndrome are reported in different studies. There is still requirement of more research to establish a position in diagnostic classification systems for these syndromes which are thought to have a multifactorial etiology. In this report, we described a patient with bipolar disorder type-2 who displayed comorbid Cotard and Capgras delusions which were most evident at the onset of menstrual periods.

Introduction
Cotard is a syndrome that is characterized by nihilistic and immortality delusions, depersonalization, derealization, and suicidal thoughts. It was first described by Jules Cotard (1840–1889) in 1880, a French neurologist [1]. Reports confirm that it is seen in several psychiatric conditions, but it is strongest association has been seen to be with severe depression from the start [2]. The syndrome is encountered in middle age and older people, especially in women. When it is seen in patients who are less than 25 years of age, a bipolar disorder is often the underlying pathology [3]. It has been described in organic brain diseases and in functional psychiatric disorders such as bipolar disorder, schizophrenia, catatonia, postpartum depression, and is association with other syndromes: Fregoli syndrome, Koro syndrome, and Capgras syndrome [4, 5].

Capgras syndrome is a psychiatric disorder which is characterized by persistent delusions that the patient himself or those close to him have been replaced by people who resemble them. The syndrome was first described in 1923 by Capgras and Reboul-Lachaux. It has been observed in functional psychiatric disorders such as depression, bipolar disorder and schizophrenia, and some organic conditions [6].

Some studies in the literature indicate exacerbation in the symptoms of mood disorders at particular periods of the menstrual cycle. Indeed, it is difficult to diagnose mood disorders at the menstrual period and differentiate them from other menstruation associated conditions such as the premenstrual syndrome and premenstrual dysphoric disorder [7]. In this case, we present a patient diagnosed with bipolar disorder type-2 with Cotard and Capgras delusions exacerbated at menstruation days.

Case presentation
A 29-year-old female from Adiyaman (Region of Eastern Anatolia, Turkey) came to our psychiatric outpatient clinic with her mother following a suicide attempt, saying: “I’ll prove, I’m dead,” “You are not my parents.” For the last week, she had been talking with strangers and telling people “This man is my husband.” She was nervous, was not sleeping and described auditory hallucination which insisted: “Kill yourself!” The day before coming to the hospital, she was found to be trying to cut her throat with a knife.

At the age of 19, she had started to be scared, particularly at night time, and told her parents: “I hate you” without a reason. She had experienced command-type auditory hallucinations: “Kill yourself!” The hallucinations had led to her jumping from a balcony, resulting in a tibia fracture of one leg. She had continued to exhibit disorganized symptoms in the fields of speech and behaviour and stated: “I jumped and I’m dead,” “It’s my second life, hereafter and is eternal,” “I’m immortal.” She had become angry when people told her that she was not dead. In addition, she had begun to say that the other people...
were dead. In particular, she had declared that a dead man and woman had been replaced by her parents, although her real parents were still alive. As she believed that she was dead, she had convinced herself could not die again. Thus, to prove her death to people and her “fake” parents, she had made recurrent suicide attempts, taking high dose medication, cutting herself and attempting to hang herself. Fortunately, she was saved on every occasion. She was not sleeping but was restless, irritable and demonstrated hyper sexuality, increased pressure and volume of speech. According to the observation of her family, during the premenstrual period and at times of menstruation, there was an exacerbation of her symptoms, especially the Cotard and Capgras phenomena and delusions of persecution. At that time, she had become more irritable and preoccupied with thoughts of suicide. This irritability was also observed during menstrual cycle in our inpatient clinic. In accordance with DSM-4-TR criteria, she received a diagnosis of bipolar disease type-2 with Cotard and Capgras symptomatology. Previously prescribed drugs were haloperidol, risperidone, olanzapine, and quetiapine. She had experienced periods of depressive, dysphoric, manic mood as well as remissions whether or not she was receiving medication. She was brought by her family after being saved on having committed suicide with a knife while she was being treated with risperidone (Risperdal) 8 mg/day and valproic acid (Depakine-Chrono) 1500 mg/day.

No another health problem in her background but only maternal grandmother had been suffered undiagnosed complaints similar to our patient in her family history. She was single, unemployed and had left school after the 3rd grade to live with her family. Her family and friends described her as being sometimes stubborn, but usually cheerful and easy to talk to. Psychiatric assessment revealed an appropriately dressed young woman. She gave relevant answers to questions but her speech was pressured. Her mood was dysphoric with elevated affect. She described delusions of persecution and both Cotard and Capgras phenomena. Her judgement and insight were absent. She had suicidal thoughts. Physical examination was normal and laboratory results were within the normal range (complete blood count, thyroid hormones, liver and kidney functions, and electrolytes). The serum prolactin level was raised, almost certainly because she was taking risperidone.

Due to the increased serum prolactin levels and continuing symptoms despite the treatment, risperidone was stopped. She had been previously treated with at least 2 antipsychotics (olanzapine, haloperidol) for more than 1 year and they were unresponsive. Clozapine was administered 25 mg/day and gradually increased to 300 mg/day. White blood cells were counted according to the specified schedule. Valproic acid was administered at the same dose as that prescribed previously, maintain a blood level of 81 μg/mL (50–100). Short-term prescriptions of quetiapine and haloperidol were used to help with sleep and agitation. During her time in hospital, the severity of this lady’s delusional system faded, she regained insight and her mood settled. She was no longer suicidal and was discharged, well, 21 days after admission.

In our follow up, clozapine was raised the dose of 400 mg/day. At six months, she was in full remission and free of abnormal beliefs even at those times within the menstrual period which had previously been so problematic.

Discussion

The literature reveals that delusional misidentification syndromes can be features of bipolar disorder. Senjam et al. [8] report a case of Cotard’s delusion in bipolar disorder type-2 who presented with self-destructive behaviour. Consoli et al. [9] reviewed all cases of Cotard syndrome reported since it was first described. The results revealed that young people with Cotard syndrome should be monitored carefully for the onset of bipolar disorder. There is an increased risk of bipolar disorder in adolescents and young adults. Salvatore et al. [10] reported that risk of Capgras syndrome is greatest with acute and brief psychotic disorders and lowest in affective disorders. Very rarely Capgras and Cotard delusions have been reported in one individual. Sottile et al. [11] described this comorbidity after an ischemic stroke. We are not aware of other cases in which Cotard and Capgras phenomena have been described in association with bipolar disorder.

Our study’s other distinct feature is exacerbation in delusions of misidentification and bipolar disorder at the menstrual period. Many psychiatric disorders are influenced by the menstrual cycle, such as premenstrual dysphoric disorder, schizophrenia, bipolar disorder, depression, anxiety disorder, bulimia nervosa, and substance abuse. The pattern of mood variability related to menstrual cycles in women with bipolar disorder is a subject of interest. Most reports in the literature deal with groups when summarizing the timing of affective disorders along the scale of the year and the menstrual cycle [7]. Teatero et al. [12] suggest that a subgroup of women with bipolar disorder, possibly those with hormonal sensitivity, experience menstrual cycle effects on depressive, hypomanic, and manic symptoms. This may to an exacerbation of ongoing mood disorders or the genesis of a new episode. An exacerbation in delusions has been observed during menstrual cycle in our patient.

Treatment strategies for Cotard and Capgras delusions have not been widely discussed. The most commonly applied procedure, quite rightly, is
symptomatic treatment. Antipsychotics, antidepressants, and mood stabilizers will be administered in the light of diagnosis of the underlying major mental disorder. General medical conditions should always be considered, treated if identified or excluded. Where there is risk of suicide, this must be addressed to make the patient safe and this may influence the choice of definitive treatment. Electroconvulsive therapy might be used to achieve rapid resolution of depressive mood when individuals have suicidal thoughts. There are some pharmacologic treatment possibilities for Cotard syndrome but the most reported treatment strategy for the Cotard syndrome as, an instance of severe psychotic depression, is ECT. Monotherapy with agents such as amitriptyline, olanzapine, or lithium has been reported to be effective. However, combination strategies are used such as risperidone/fluoxetine, clozapine/fluvoxamine/imipramine. Using lithium is beneficial in bipolar disorder type-1 comorbidity [13]. In treatment of Capgras symptoms, antipsychotics are usually helpful. In our case, although there was a suicide attempt, we managed the patient successfully with oral and intramuscular drugs. Psychotic symptoms were decreased by using clozapine and affective symptoms by using valproic acid [14]. Most probably, there was a resistance to the drugs prescribed previously.

Conclusion

Previous reports have indicated limitedly the comorbidity between Cotard and Capgras syndromes and between delusional misidentification syndromes and bipolar disorder. But we believe this is the first report of a patient with bipolar disorder type-2 who has also Cotard and Capgras delusions, and where these are exacerbated at times of the menstrual cycle. In our patient, we achieved full remission in psychotic symptoms and delusions by using clozapine in combination with valproic acid.

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