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Case Report

# Capgras Syndrome with Pregnant Woman: A Case Report and Literature Review

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## Abstract

Background: Capgras syndrome is one of the delusional misidentification syndromes characterized by the delusional belief by the patient that the close person is replaced by an imposter who looks physically the same. Capgras syndrome was initially considered a purely psychotic disorder, but recently, Capgras syndrome understands as a neurological disorder, in which the delusion primarily results from organic brain lesions or degeneration. The case report aims to review previous literature on topic and present a case of pregnant woman experiencing Capgras delusion under full consciousness and whose expediencies are not linked to any psychiatric or neurological illness. Case presentation: A 29 year old, pregnant woman was brought for psychiatric consultation by her family with chief complaints of belief that her husband had been replaced by identical impostor, associated with irritability, anger and hostility since 4 months and aggravated in the last month. This pregnant woman showing absence of emotional response, no familiarity toward her husband and delusion that her husband replaced by imposter. Conclusion: Capgras syndrome is not necessarily pathological and can occur in a healthy population. Capgras syndrome may happen spontaneously under full consciousness in the healthy subjects; like in neurological and psychiatric patients. In this case report the phenomenological aspects of Capgras syndrome may similar in the content of the delusion to other studies were carried out with psychiatric or neurological patients, but no evidence of depersonalization, physical violence or aggression.

## Keywords

Capgras Syndrome, Imposter, Double, Delusional Misidentification Syndromes

## 1. Introduction

Four main variants of delusional misidentification syndromes (DMS) include Capgras Syndrome, Fregoli syndrome, intermetamorphosis syndrome, and syndrome of subjective doubles). These delusions collectively are known as delusional misidentification syndrome [1-3]. In Delusional Misidentification Syndromes, patients misidentify familiar persons, places, objects, or themselves, believing that they have been replaced or transformed. Like all delusions, they often occur in other psychotic disorders, especially schizophrenia and organic disorders.

Capgras syndrome (named according to the French psychiatrist Joseph Capgras, one of its descriptors in the twentieth century — although it was already repeatedly described in the nineteenth century [4], is the core of the group of misidentification syndromes. Joseph Capgras (1923) first defined the disorder in a paper that reported a case of a French-origin woman who complained that corresponding doubles had replaced her husband and other persons she knew [5]. He

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called it l'illusion des sosies (illusion of doubles) [6], or "the illusion of look-alikes." [5] or "the illusion of Doppelgänger." [7].

Capgras syndrome is characterized by the recurrent and transient belief that a person usually someone closely related, has been replaced by an imposter or double [8, 9]. The imposter usually has features that are very similar to those of the original person [8], although subtle physical differences are used to differentiate the original person from the imposter [10, 11]. Interestingly, the delusions are specific to a few, usually familiar, people, and recognition of other faces (and objects) is not impaired.

In Capgras syndrome, the content of the delusion is almost always threatening to the existence of the individual, related persons; the patients show anger and even hostile behavior may occasionally act against individuals whom they believe to be impostors. Affected persons usually maintain clear consciousness, with apparently intact cognitive functions, but typically are strongly paranoid, with hostility and mistrust, sometimes with feelings of depersonalization, derealization and emptiness [5, 12].

The exact cause is unknown, in most of the cases associated with preexistence neuropsychiatric conditions. Initially, Capgras syndrome reported to be associated only with psychiatric diseases, including paranoid schizophrenia [11, 13] and schizoaffective disorder [14, 15]. However, more recently Capgras syndrome has also been described in neurological conditions including cerebrovascular disease [10, 16, 17] after head trauma [18] pituitary tumor [19] and especially in neurodegenerative diseases such as Alzheimer disease [19-22] and Lewy body disease [23, 24], as well as posterior to brain injuries [18].

A variety of medical conditions have been associated with Capgras syndrome, as vitamin B12deficiency, hepatic encephalopathy, hypothyroidism, hyperparathyroidism, epilepsy, chronic alcoholism cases and encephalitis [25-29].

## 2. Case Presentation

A 29 year old, pregnant woman was brought for psychiatric consultation by her family with chief complaints of belief that her husband had been replaced by identical impostor, associated with irritability, anger and hostility since 4 months and aggravated in the last month.

She began saying that man is not her husband but is replaced by imposter. One night I heard a knock on my door, I opened the door and there was a man trying to get into the house. Iwas shocked and felt scared. So, I screamed. My family members and neighbors were gathered, and everyone was surprised when I told them that this man is not my husband. She said, they brought me to you to prove I'm mentally ill. They enforced me to come. My mother and other family members think that this man is my husband. Everyone believes him that he is my husband. The patient was questioned how was it possible, she replied "he looks like my husband; he assumed the role of my husband, and he plays his role perfectly". She added, "He imitates my husband's voice, and duplicates his movements and the way he walks; he is a copy of my husband."

On further questioning, she believed that this man convinced everyone and deceived them, but he could not deceive me. My husband traveled on business and I am shocking by this man claiming that he is my husband. It is impossible for me to live with this man. How can I live with a man and practice my married life when he is not my husband? I am surprised that my family thinks he is my husband and is clinging to him. No one believed me. She refused to be with this imposter and frequently screams at him to leave the house. She became irritable, angry, when he comes close to. By the time, she developed verbal hostility towards the imposter (husband), but no violence or aggression. Despite reassurance from family members, relatives and friends, she continued to express concern that her husband had been replaced with someone else. She was firm on her belief and became irritable when confronted with. She would not talk to her imposter and would become angry when approached. Indeed, she self-reported anxiety and anger were associated with the presence of imposter. She used to express her happiness, smile, laugh, and interact with others normally, exchanging good feelings with them. This happens in the absence of an imposter, and when the imposter is present, her life turns into hell. On next session, she said "I'm still waiting for my husband, my love. Even though my husband abused me and neglected me and underestimate my emotions, I felt that he would separate from me. She was afraid that he would leave her. I endured all this because I love him, I cannot hate him.

I conducted independent interviews with her and a knowledgeable collateral source, usually the husband and close family member. Her mother revealed that this was the first time her daughter exhibited delusion, and recently in an abusive relationship with her husband. I met her husband when he was thirty years old. He was worried about his wife and felt guilty. He mistreated her and got tired of living with her because of her nervousness. He threatened her that he would marry another woman. And he neglected her in the last months. Her family and husband confirmed that this delusion started four months ago and that there is no past medical, psychiatric or neurological history.

At the time of her psychiatric interview, she maintained eye contact, with no psychomotor agitation or retardation. Attention, concentration and orientation were intact. She is pregnant (6 months), no history of abortion, well dress, well groomed. She is cooperative, attentive, and interested. She reported no past psychiatry illness; no suicide thinking or attempts; no seizure disorder episodes of loss of consciousness; no episodes of confusion or disorientation; no experiences of unreality, detachment, or being an outside observer. No major medical, surgical illnesses or major traumas. Neither alcohol nor drug used history. Personal, family, social history and current circumstances are normal. Speech was

spontaneous, clear with good articulation, goal directed and relevant, no blocking or distractibility. She reported her mood as 'depressed and anxious' with congruent and tearful affect. She did not present with any auditory or visual hallucinations. Her thought process was concrete, although her thought content contained delusion about imposter. Cognition was normal integration of consciousness; alert, aware oriented to time, place, and person. Attention, concentration calculation good.

Because of the nature of her delusion, comorbid medical and neurologic conditions were considered. Obstetric consultation was done with ultrasound normal. She was normal at both physical and neurological examination and normal pregnancy. The brain CT and EEG were also normal. The results of laboratory workup including CBC, EEG, LFT, hepatitis B serum antigen, hepatitis C virus, FRT, B12, thyroid and parathyroid hormones, progesterone, estrogen, electrolytes and urine drug screen, were within normal range. The present case report aims to review previous literature on topic and present a case of pregnant woman experiencing Capgras delusion under full consciousness and whose expediencies are not linked to any psychiatric or neurological illness. The diagnosis of Capgras syndrome was made based on a clinical interview with the informant in accordance with the Diagnostic and Statistical Manual – IV TR (American Psychiatric Association, 1994).

## 3. Discussion

Capgras syndrome is the core of the group of misidentification syndromes, affecting both male and female. The defining feature of Capgras syndrome is the recurrent delusion that a person has been replaced by an imposter. Various attempts have been made to explain the underlying pathology varying from psychodynamic theories to biological theories [30]. Although the etiology of Capgras syndrome is not fully understood, multiple theories made to explain the underlying pathology varying from psychodynamic theories to biological theories. It has been hypothesized that this Capgras syndrome is caused by disconnect between the areas of the brain responsible for facial recognition and emotional responses. The cerebral basis of the Capgras syndrome was first explained in 1979 by Alexander and Stuss [31] as a disorder that correlated with a combination of the right hemisphere damage causing problems with visual recognition and frontal lobe damage causing difficulties with familiarity. Some researchers hypothesize Capgras syndrome has often been associated with either right hemispheric or bilateral lesions to the frontal and/or temporal lobes affecting limbic, paralimbic, and visual pathways involved in affective processing [25, 32, 33].

Some psychologists hypothesized that patients with Capgras syndrome have conscious ability to recognize faces was still potent. Still, they may also present with damage to the system that facilitates emotional arousal to familiar faces [34]. It entails that an individual may recognize someone while feeling that something is 'wrong' about them. Hirstein and Ramachandran [35] also shared similar findings in studying one patient with Capgras syndrome after a brain injury. This brain injury could be a disconnection between the temporal cortex, an area where familiar faces are recognized, and the limbic system involved in emotions. Hirstein revised this theory and suggested that the patient with Capgras syndrome would not recognize familiar faces [35]. Joseph [36] reported that the cerebral disconnection hypothesis assumes that the two cerebral hemispheres independently process visual information from the face, and Capgras delusion results when these processes fail to integrate. In most of the cases that documented are associated with preexistence neuropsychiatric conditions and no single impairment or pattern of lesions has been found to underlie all cases.

In this case report I describe a pregnant woman showing absence of emotional, no familiarity toward her husband and delusion that her husband replaced by imposter, with other symptoms such as anxiety, anger that can be ascribed to a clinical picture of Capgras syndrome. It is a pure Capgras syndrome without any other psychiatric or organic etiology. Attempt to explain this delusion may be based on psychodynamic theory. In brief, initial psychodynamic theories hypothesized that conflicted feelings of love and hate towards a close relative are resolved by a delusion. The psychological component of her delusion is a way in which the patient deals with the ambivalent emotions (emotional dualism) that formed in her. Love and hate, a condition that a person cannot endure, projecting hatred onto one person (imposter) and projecting love onto another person (husband), but this duality relates to one person. She usually maintains clear consciousness, with apparently intact cognitive functions, i.e. no confusion in her consciousness and her perception is normal. But the patient suffers from confusion in her emotion, which she has projected onto her thoughts, so she has developed a wrong belief (delusion) that imposter has replaced her husband. Delusion is formed and controlled her, and she firmly believed that her husband has been replaced by another person. This similarity allows her to project onto him the feelings of anger, hatred that she feels. Towards her husband; she is denying this hate and the anger, i.e. she repressed her emotions; so she can not to express her hate and anger to him directly (because she loves true person, her husband), and instead claiming that the hate, anger are being directed at a impostor. Here, her primitive ego defense mechanisms of projection, denial, and splitting constitute an important psychological component of the delusion of doubles [5, 9, 37].

With regard to depersonalization, many authors have pointed out that Capgras syndrome is associated derealization and depersonalization may be key factors in the pathogenesis of Capgras phenomenon [5, 9, 38-41]. Depersonalization is one of the five major dissociative disorders and defined as “experiences of unreality, detachment, or being an outside observer with respect to one’s thoughts, feelings, sensations, body, or actions” (DSM-5, American Psychiatric Association 2013) [42]. The individual in depersonalization may feel

detached from his or her entire being (e.g., "I am no one," "I have no self"); thoughts (e.g., "My thoughts don't feel like my own" (DSM-5, 2013 American Psychiatric Association). In this case report, she has no history of experiences of unreality, detachment, or being an outside observer. Though she has a delusion, she has no disruption in the normal integration of consciousness, memory, and identity. Thus evidence for depersonalization was not specific of Capgras syndrome.

With regard to violence, many authors [32, 43-46] claim that Capgras may be a specific risk factor for violence, and even murder, of the misidentified person. In contrast to previous reports that have associated Capgras delusion with physical violence, Currell et al. [47] found no evidence of physical violence or aggression associated with Capgras. And they reported that claims are particularly notable given they are largely based on a literature formed mainly of single cases or small case series that may be subject to significant reporting bias [47]. In the same line, the presented case developed verbal hostility towards the imposter (husband), but no violence or aggression toward the imposter.

Finally, Capgras syndrome is relatively uncommon phenomena associated with both psychiatric [11, 13-15] and organic brain dysfunction [10, 16-24, 48]. Capgras syndrome is not necessarily pathological and may occur in a healthy individual as in the case outlined here.

## 4. Conclusion

The current literature examines elicit Capgras syndrome in the clinical population rather than the healthy population. Capgras syndrome may happen spontaneously under full consciousness in the healthy subjects; but this does not mean the subjects suffer from a neurological or psychiatric disorders. In the case outlined here**;** it is a case of pure Capgras syndrome was carried out in healthy pregnant woman; some phenomenological aspects as mentioned above may similar (in the content of the delusion) or differ (in aggression, violence, depersonalization) to other studies were carried out with psychiatric or neurological patients. This raises the question if the healthy individual has no neurological, medical, or psychiatric disease and he or she developed experiences of Capgras syndrome, as the presented case report; how can we clarify this? Absence of pathology does not exclude Capgras syndrome.

## Abbreviations

DSM 5: Diagnostic and Statistical Manual 5

## Author Contributions

**Nabil Ahmed Numan** is the sole author. The author read and approved the final manuscript.

## Conflicts of Interest

The author declares no conflicts of interest.

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