Case Conference

Cotard Syndrome

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Abstract *: Cotard's Syndrome, is a rare neuropsychiatric condition in which the sufferer holds a delusional belief that he or she is dead, does not exist, is putrefying or has lost his/her blood or internal organs. The syndrome is described to have various degrees of severity, ranging from mild to severe. It is seen in subjects with depression, schizophrenia and psychoorganic syndromes. We present the case of a middle aged lady, who manifested the phenomenon of Cotard Syndrome in the background of depression.*

Key Words : *Cotard Syndrome, Depression, Nihilistic delusion*

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INTRODUCTION

The Cotard's Syndrome, is a rare neuropsychiatric condition in which the sufferer holds a delusional belief that he or she is dead, does not exist, is putrefying or has lost his/her blood or internal organs. It was first described by Jules Cotard, a French neurologist who called it as "le délire de negation" ("negation delirium"), in a lecture in Paris in 1880.[1] He reported the case of a 43 year old lady who believed that she had "no brain, nerves, chest or entrails and was just skin and bone", that "neither God nor the devil existed" and that " she was eternal and would live forever". The syndrome is described to have various degrees of severity, ranging from mild to severe. In a mild state, feelings of despair and self-loathing occur, whereas in the severe state the person with Cotard's syndrome actually starts to deny the very existence of self.[2]

We present a case of recurrent depressive disorder, in which the sufferer had nihilistic delusions typical of Cotard syndrome.

Case

SP, 60 year-old female, primary educated, home-maker belonging to a Hindu extended family of middle socio-economic status, from an urban background, who was premorbidly well adjusted presented with an insidious onset illness of 2 years duration, which was precipitated by marriage of her son, with chief complaints of sadness of mood, inability to carry out household work, lack of sleep, wish to die and a feeling of emptiness in head. Due to the severity of her symptoms she was admitted for management in inpatient setting.

Exploration of her history revealed that she had 2 episodes of severe depression in the past (first episode 40 years back and 2nd episode 16 years back). In both the episodes she was treated by medications and electroconvulsive therapy and achieved remission with treatment; however she was never given prophylactic antidepressant medication.

For the current episode, patient was apparently maintaining well 2 years prior to presentation to our hospital. At that time patient's family was arranging the marriage of her son. During these arrangements, patient did not like some of the decisions of the family members and voiced her apprehensions about making all the arrangements as per the decision. Over the period of next few days patient started remaining irritable, would have quarrels with her son and husband, and

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repeatedly voiced that "she would be held responsible if there would be any shortcomings during the marriage". According to the husband, everything was arranged as per the requirement and the apprehensions raised by the patient were ill founded though she could not be reassured even after being explained about these again and again. She also started remaining sad, would voice sadness, which would be noticed more in the morning, but would reduce as the day would pass by. She also started voicing that other family members were not giving her due importance and she was not consulted for major decisions. The above symptoms kept on worsening over the period of next 4-6 weeks and in addition to the above she also started having difficulty in falling asleep and early morning awakening and would frequently report lack of freshness after the night's sleep. Following this she was taken to a psychiatrist who started her on T. Zolpidem 5-10mg at bedtime along with T. Clonazepam 0.5mg twice daily. The above medications helped the patient for a short while, only in the form of some improvement in sleep, however other symptoms continued unabated.

Patient's son's marriage was held about 6 months after the onset of current symptomatology. She participated in her son's marriage and did all the rituals, jobs and responsibilities that she needed to perform though she remained apprehensive that she would do something wrong. However, over the next few days all her above symptoms worsened. Her irritability increased, she would frequently voice sadness of mood, would appear tense. Her sleep decreased further, she lost interest in household chores, her interaction with family members decreased, stopped enjoying pleasurable activities like sewing and watching television. Her interest in religious activities like reading holy books also decreased and she would mostly keep laying in her room. She would frequently voice that she was inept in household chores, would sulk about her not being able to cope up with her daughter-in-law's expectations in spite of the daughter-in-law being very friendly and accommodative. Occasionally when patient would make attempts to carry out some household chores, she would either leave the work half done or if at all she would complete the work, she would frequently say that things have been done in an awful way, and would not be reassured by the family members to the contrary. Gradually patient became very slow in day to day activities, would express inability in taking bath, self-care, washing clothes etc and family members had to encourage her repeatedly to complete her day to day activities. Her appetite also reduced.

She also started expressing that "my mind and body don't work", "her brain was not working properly and hence she was not able to socialize or think", would voice that she is no more going to improve, she has aches and pains through out her body and she had no strength in her body. During this time she became very lethargic, would speak in low and slow voice, would also take long pauses while talking and would voice fear of committing mistakes while talking.

On seeing neighbours, she also expressed that other ladies in her neighbourhood were avoiding her and were discussing about her inabilities and her ill-health, which was actually not the case. When family members would try to reassure the patient against such beliefs, she would reluctantly agree with them, but would again repeat the same after some time. She was taken to the psychiatrist after about 2 months of son's marriage and was prescribed T. Escitalopram 20mg BD, T. Clonazepam 0.5mg BD, T. Nitrazepam 10mg HS, multivitamins and Lorazepam 1mg SOS. Despite taking the above medications with regular compliance for the next 2 months, her symptoms continued at the same intensity. After a trial of escitalopram for 4 months, the antidepressant was changed by the

psychiatrist to sertraline 100mg OD, Cap. Venlafaxine 75mg/d, T. Clonazepam 1mg BD and T. Lorazepam 2mg SOS. The above trial was given for 6 months, with no improvement in her symptoms. In the meanwhile her grandson was born, but she did not show any happiness about the same, and didn't take care of the grandchild unlike her previous self when she did take care of other grandchildren in the past. Additionally, now she started voicing that it would be better for her to die rather than live, would say that she is a worthless person and burden on everyone. Occasionally would also tell the family members to take her to some river, where she can end her life or she be given a lethal injection so that she dies.

All her symptoms continued and additionally about 3-4 months prior to admission in our inpatient unit she started voicing that "her head had become empty, it did not have a brain at all and hence she could not think at all or do anything that needs involvement of brain". Family members would try to reason to the contrary but patient would hold on to her belief very firmly and resultantly became bed bound. Over the days the frequency of voicing such beliefs increased, she did not do any house hold work saying that as she does not have brain and her head is empty, hence she does not know how to do these things. She also stopped talking spontaneously with her relatives at home as she maintained that as her head was empty her brain did not work, and resultantly she could not think. She could not be reasoned out of this.

As her condition kept on worsening she was brought to the outpatient of our department after about 2 years of onset of initial symptoms in the current episode and was admitted for further management.

Throughout the period there was no history suggestive of any ideas of sin, guilt, suicidal attempts, persecutory ideas, hallucinations, first rank symptoms, hypomanic/manic features, free floating anxiety, phobias, head injury, CNS infections, seizure disorders and substance use.

In the past history, as mentioned before, she had 2 similar episodes in the past, both of which lasted for 4-5 months. In both the episodes she was treated with medications, details of which are not available and electroconvulsive therapy. After the second episode she was continued on antidepressants for 1 year.

There was no family history of mental illness and developmental and educational histories were not contributory. Nothing significant emerged for the sexual and marital history. Evaluation of premorbid personality revealed that patient has been an introvert, non-assertive, adjustable, optimistic, welcomed responsibilities, confident, tolerant of others, adaptable, dependable, flexible, methodical, and calm with stable mood. Physical examination did not reveal any abnormality.

On mental state examination patient avoided eye contact, rapport was established with much difficulty. She had psychomotor retardation, monotonous speech, sadness of mood with restricted range and reactivity, expressed ideas of unworthiness, hopelessness, hypochondriacal ideas, wish to die and delusion of nihilism. Pateint said that "her head was empty, she did not have brain". Further, patient expressed that she is not able to think anything, say anything and do anything because she does not have brain. Pateint remained convinced of her belief, even when the therapist gave evidence contrary to her belief. However, she did not have any perceptual abnormality. In cognitive functions, she was oriented to time, place and person, had poor attention and concentration, impaired immediate and recent memory with preserved remote memory. She did not cooperate for further cognitive evaluation and had partial insight into her illness.

Diagnosis

With the above information, diagnosis of recurrent depressive disorder current episode severe depression with psychotic symptoms (nihilistic delusions amounting to Cotard syndrome) was considered.

Management

On investigation no abnormality was detected in heamogram, liver function test, renal function test and thyroid function test. She was continued on Cap Venlafaxine, dose of which was increased to 225 mg/day. Along with venlafaxine she was prescribed T. clonazepam 4 mg/day and T. risperidone 2 mg/day. Considering the severity of her illness and past history of good response, after obtaining informed consent and conducting pre-ECT work-up, she was started on ECT. She received 10 modified bilateral ECT during the inpatient stay over a period of 4 weeks, with which her symptoms improved significantly. She started appreciating that she has brain and that it has started functioning, although not to the extent which patient expected. Over the next 2 weeks patient achieved full remission, was sent on parole and psychoeducation of patient and family was done. The patient was discharged on Cap Venlafaxine, 225 mg/day and tab clonazepam 2 mg/day.

At 4-week follow-up, the patient was maintaining well and was compliant with the medication.

Discussion

Cotard's Syndrome currently is regarded more as a symptom complex than a syndrome, though the basic tenets of the century old description by Cotard still holds true. It is considered to be a rare syndrome and the data with regards to its incidence and prevalence are not available. Although there are about 200 published articles on Cotard Syndrome, an operational definition is still lacking.[3] In published literature the syndrome has been most commonly reported to occur in late middle life, although the age range in these reports is between 16 – 81 years. It is also more frequently reported in females.[4,5] Clinical features of this condition i.e. Cotdard Syndorme vary in terms of the extent and number of nihilistic delusions and range from losing powers of intellect and feeling to leading the patient to deny both her/his own existence and that of the cosmos.

Cotard syndrome has been seen in subjects with depression, schizophrenia and psychoorganic syndromes. It evolves typically with vague and diffuse anxiety which is often associated with irritability which may vary in duration from a few weeks to several years. In mild cases, the patient complaints of becoming depressed and of beginning to believe that powers of reasoning and feelings were lost; feel that things are different inside and outside and hence becomes more anxious. Anxiety gives way to despair that has frank nihilistic colouring. Loss of all material wealth, intellectual capacity and self loathing occur. It may lead to a complete nihilistic delusional state where ideas of negation occur, leading the patient to deny any link with reality or the surrounding world, one's existence may also be denied. Ideas of subjective negation lead the patient to deny the existence of parts of body. Usually, it begins with the denial of one specific part of the body. The subject may proceed to deny existence and often does not use pronoun 'I'. If it progresses further, a state of utter despair with desire/feel 'not to exist' and possibility of death may be seen as impossible, leading to ideas of immortality. The greatest despair of the patient is wishing to die but condemned to live forever in the state of nihilism. Such ideas of immortality may be associated with other megalomanic ideas, such as ideas of enormity (delire d'enormite) and other similar bodily delusions. The paradox becomes even more pronounced when these patients at one time protesting that they did not exist start claiming to be all pervading over the earth and this has been termed as "*The*

manic Cotard syndrome".[6]

Accessory symptoms may include analgesia, mutism, self mutilating urges, suicidal ideas, illusions and hallucinations. Hallucinations are most commonly auditory but may be visual. Their content usually reflects preoccupation with guilt, despair and death. It is associated with strong affective component. Negativistic attitudes and behaviour are common like not eating etc.

The neurobiology of Cotard syndrome has been studied with no definite breakthrough. The findings are not consistent and have no clear diagnostic or prognostic utility. Atrophy of the basal ganglia was proposed by Saavendra,[7] but this has not been confirmed by more recent neurobiological studies. Joseph and O'Leary[8] reported greater diffuse cerebral atrophy and interhemispheric fissure enlargement in Cotard Syndrome subjects than the controls but no specific parietal lobe pathology was evident. The interhemispheric fissure enlargement was thought to be a manifestation of medial frontal lobe atrophy. Management of this syndrome essentially lies in treating the underlying condition. Electroconvulsive therapy remains the treatment of choice[9]. In pure Cotard's Syndrome, neuroleptics are treatment of choice though it remains an untested hypothesis[3]. If associated with organic state, underlying condition needs to be treated. If associated with dementia, there is little to offer. Suicide risk needs to be addressed as these patients are often suicidal.[6]

Complete recovery may occur as spontaneously and as suddenly as its onset. Recovery may be rapid or gradual in mild cases. Association with organic causes resolve quickly. But, it may persist after depression has cleared in some cases. In chronic cases, the delusional state of negation usually waxes and wanes. It improves with other phenomenon in case of schizophrenia.[6]

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