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I'M DEAD, THE REALITY OF WALKING CORPSE SYNDROME (COTARD'S SYNDROME)

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ABSTRACT

"I am dead" is the sentence usually heard by the patients of Cotard's syndrome. The syndrome is characterized by nihilistic delusion. Patients believe that they have lost organs, blood or body parts, some saying they are putrefying and some even giving their cause of death. Studies from different sources showed that the syndrome is normally found in middle aged or older people of which most of them were females. According to current study, scientific reviews, articles and case studies, it is found most often in associated with schizophrenia depression, also in patients suffering from neurological illness, organic lesions of brain, traumatic brain injuries, brain dysfunction, Capgras delusion and in rare case anxiety & feeling of guilty or self consciousness. The treatment generally includes the use of anti-psychotics, anti-depressants, mood stabilizers and electro convulsive therapy (ECT), among them ECT was found to be most effective. However, the DSM-IV-TR and ICD-10 does not classified Cotard's syndrome as a separate disorder. The aim of current study was to emphasize on the reason, spread awareness and consequences of this strange Cotard's syndrome.

Key Words:- Cotard's syndrome, Nihilistic Delusions, Capgras delusion, ECT, depression.

INTRODUCTION

Cotard's syndrome or *Walking Corpse Syndrome* is a rare neuropsychiatric disorder characterized by presence of nihilistic delusions in which the patients believe that they have lost organs; blood or body parts or even they are dead (figure:1). This syndrome was first described in 1880 by French psychiatrics Jules Cotard, who reported a clinical state, which he believed, to be new type of agitated melancholia (Berrios GE, Luque R, 1995**)**. He described a case of 43 year old female patient who had the delusion of having no brain, nerves, and chest and was just skin and bones and would live forever. Jules named the condition '*le delire des negations*' or "negation delirium". It was later popularized as Cotard's syndrome (Swamy NCK, 2007).

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The rare syndrome is believed to exist in patients with psychotic disorder like depression and schizophrenia or to be caused by a general medical condition (Elsebet SH, Tom GB, 1998). It is also found associated with semantic dementia (Mario FM, Jesus RB, 2011). Severe depression is the condition most often associated with Cotard's syndrome (figure: 2). It may be referred to as a psychiatric disease, but may also occur in association with organic brain abnormalities, especially lesions of non-dominant temporoparietal cortex or migraine (Andrew JL, 2011). The duration of syndrome can vary from weeks to years depending on the underlying disorder. A retrospective analysis of 100 cases of Cotard's syndrome was carried out in which depression was reported in 89% of the subjects, anxiety 65% and guilt was also found as a cause. The exploratory analysis extracted three factors: Psychotic depression, Cotard's syndrome type I and type II. Psychotic depression includes patient with melancholia and few nihilistic delusions.

Type I patients showed no depression and constituted pure Cotard's Syndrome. Type II showed anxiety, depression and auditory hallucinations and constituted a mixed group (Table 1 and 2), (Berrios GE, Luque R, 1995).

Since 1880, similar cases have been reported worldwide and many authors have written about its possible etiology, some seeing Cotard's syndrome as a syndrome, others as an independent entity, many including it in the psychotic disorders, but with the majority still insisting that it belongs to the affective spectrum. A case of Cotard's syndrome, in a 27 year old man with schizophrenia was reported, presenting symptoms of somatic delusion of gastro-intestinal, cardiovascular malfunction and the absence of stomach (Okan C *et al.,* 2004). Another case was reported of a 17 year old boy with traumatic brain injury who presented with Cotard's Syndrome and Capgras delusions. Capgras delusions are characterized by the belief that a person (usually a family member or friend) has been replaced by an imposter. This patient was reported to have multiple cognitive impairments which were secondary to brain injury (Peter VB, 2000). A case of a middle-aged woman in 1995 was reported in which the syndrome was evaluated according to stages as germination, blooming and a chronic (depressive or paranoid type). The chronic stage was characterized by delusions (Yarnada K *et al.,* 2000). A case of 53-year-old Filipino woman was reported who was admitted to the psychiatric unit, behaving as if she was dead and believing that she smelled like rotting flesh, and she wanted her to be taken to the morgue so that she could be with the dead people (Anne R, Boris M, 2008). A 65-year-old male patient, married, illiterate, from Kerman (a city in southern Iran) was diagnosed with major depressive disorder associated with the symptom of Cotard's syndrome was reported also to be suffering from hydrophobia. Hydrophobia as a symptom of Cotard's syndrome (table 3) was not been previously reported (Nejad AG, 2002). A case of 32-year-old man, from Kerman admitted to Kerman Psychiatric Hospital for the first time was anxious and restless and hyper talkative. He also had olfactory hallucinations. During evaluation, he was found to have the delusion of being converted into a dog (lycanthropy). He also presented with guilt with delusional intensity about his previous sexual contact with a sheep (Nejad, AG, Toofani K, 2005). A case was reported in an 18 years old female, with the tonic-clonic seizures. She stated having the absence of hands, and complained of the absence of different body organs (Jesus RB. *et al.,* 2010). A 78-year-old internist having a seven month history of depression was reported with the syndrome.

In the hospital he argued that he was dead and that there was no point in treating him (Jesus RB. *et al.,* 2010). A retrospective study of 349 Chinese psycho geriatric patients in Hong Kong showed a prevalence of 0.57% for the syndrome. The two patients identified were both females with major depression (Helen FKC, 1995).

The same way in 1990 a case of Cotard's syndrome was reported for the first time in a pregnant woman in Kashmir, India. The case was diagnosed late due to lack of awareness from psychiatric problems in primary care physician, resources for the patient and later the patient died. This report delineates the difficulties faced by patient which such symptoms in a low resource setting (Zaid AW. *et al.,* 2008). A recent case in 2012 of Cotard's syndrome of a 39-year-old man with a diagnosis of human immunodeficiency virus (HIV) infection was also reported (Oliver F. *et al.,* 2012).

The treatment method for Cotard's syndrome suggested by different articles includes the use of pharmacotherapy including use of antidepressants such as imipramine, antipsychotic including haloperidol, olanzapin, mood stabilizers such as lithium salts. However some patients did not respond well to pharmacotherapy as some drugs such as antidepressants cause patient to be muted, they refused to eat and drink and showed marked psychomotor and muscular rigidity, the lithium salts lead to mental confusion. The use of drug therapies with electroconvulsive therapy (ECT) is thought to be most effective in most of the cases who didn't respond well to drug therapy alone. Many cases have been successfully treated with ECT, including cases with co morbid schizophrenia. These include, for example, a 46 year old woman, a 61 year old female with the syndrome (Nahla AM, Asghar H, 2004), a young male bipolar patient with the same symptoms (Baeza I. *et al.,* 2000), 65-year-old woman with long-standing facial pain and fluctuating mental symptoms. (Susanne S H, Steen HSHV. 2002) ECT was also found to be effective in 67 year old women presented with Cotard's syndrome having cardiac disease (Kucia K, Delkowski RS, 2004).

Another treatment was described in which 8 cases of resistant recurrent depression were treated with a combination of nor-triptyline and a new serotonin reuptake inhibitor with or without use of lithium was found benificial where other drug regimen and ECT failed (Seth R. *et al.,* 1992)

A patient was reported who showed improvement after antidepressant therapy that was accompanied by an improvement in hypo perfusion found using Single Photon Emission Computed Tomography (99mTc-HMPAO) (Hashioka, *et al.,* 2002).

The syndromes differs from that of depressive disorders in a sense that patients suffering from depressive disorders show the intention of committing suicide or want to be dead, however in Cotard's syndrome the patients already have the perception of being dead and lost body organs. The DSM-IV-TR and ICD-10 do not classified *Cotard's syndrome* as a separate entity. In DSM-IV-TR, nihilistic delusions are categorized as mood congruent delusions within a depressive episode with psychotic features (Debruyne H. *et al.,* 2011).

OBJECTIVE OF STUDY

The primary rationale for this article was to review aspects of Cotard's Syndrome in order to propagate awareness of this rare syndrome. Greater awareness should ensure better or faster identification and treatment of individuals and should help in determining the prevalence of the syndrome.

METHODOLOGY

We conducted a literature and electronic data base survey for Cotard's syndrome. We started our search form prevalence of syndrome in European territory to the Asian countries. Our search also included literature reviews from India. We also searched for its prevalence in Pakistan. The search also included the existence of syndrome in males, females and younger people. Several questions were asked from different age groups regarding this syndrome and symptoms associated with this rare disease. Questions included were, do they know about the Cotard's syndrome, do they know someone suffering from the syndrome? If so, what kind of sign and symptoms they were complaining about? Do they know any one suffering from disease having signs manifestations same as the Cotard's syndrome shows? If yes, did they try to search about it and its treatment options?

These questions were asked from about a sample size of 100; and most of them were younger and middle aged people. We also conducted a literature based survey for a sample size of 20 cases and the figures and graphs are plotted according to it.

RESULTS AND DISCUSSION

Cotard's syndrome or *Walking Corpse Syndrome* is a rare neuropsychiatric disorder characterized by presence of nihilistic delusions in which the patient believes that they have lost organs; blood or body parts or even they are dead (figure: 1).

The aim of current study was to emphasize on the causes of its prevalence, to spread awareness and consequences of this strange syndrome.

According to survey results people are unaware of this syndrome and a very few percent of people heard about this disease. From the results of the data analysis gathered from literature based survey, it is concluded that the syndrome is mainly found in middle aged female patients (figure: 3), mainly in those with depression (figure: 2). Schizophrenia and guilt .Other brain abnormalities are also found to be associated. It was also reported in association with hydrophobia and lycanthropy (table: 3). The treatment for this syndrome has been investigated and found the use of anti-psychotics, anti-depressants, mood stabilizers & electro convulsive therapy (ECT), among them ECT was found to be most effective. However, the DSM-IV-TR and ICD-10 does not classified Cotard's syndrome as a separate disorder. Thus identifying cases of Cotard's syndrome, in our current diagnostic classification system is extremely difficult. The syndrome has yet not been reported in Pakistan either due to the lack of awareness or superstitious believe. Another possibility is it doesn't exist in Pakistan as it has not been reported yet.

Table 1. Types of Cotard's Syndrome

Types of Cotard's Syndrome	Symptoms
Psychotic Depression	Melancholia and few nihilistic delusions
Cotard's syndrome type I	No depression, pure Cotard's syndrome
Cotard's syndrome type II	Anxiety, depression, auditory hallucinations

Retrospective analysis of 100 cases of Cotard's syndrome showing 3 types.

Table 2. Stages of Cotard's Syndrome

Stage 1	Germination
Stage 2	Blooming
Stage 3	Chronic (depressive or paranoid type)

Evaluation of Cotard's syndrome according to stages in middle aged women

Table 3. Presentation of Cotard's Syndrome with Different Clinical Conditions

Cotard's syndrome with hydrophobia
Cotard's syndrome with lycanthropy
Cotard's syndrome with HIV- Aids
Cotard's syndrome with cardio logical disease(vulvar heart disease)
Cotard's syndrome in a pregnant women

First times reporting of Cotard's syndrome with above mention clinical conditions

Figure 1. Believes regarding Cotard's syndrome

Figure 2. Leading causes of Cotard's syndrome

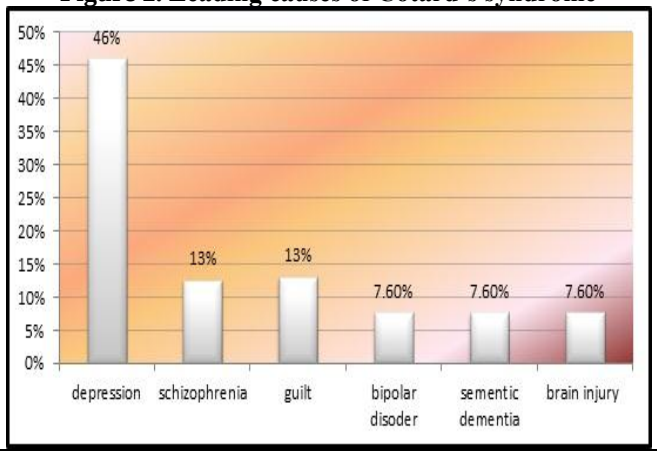
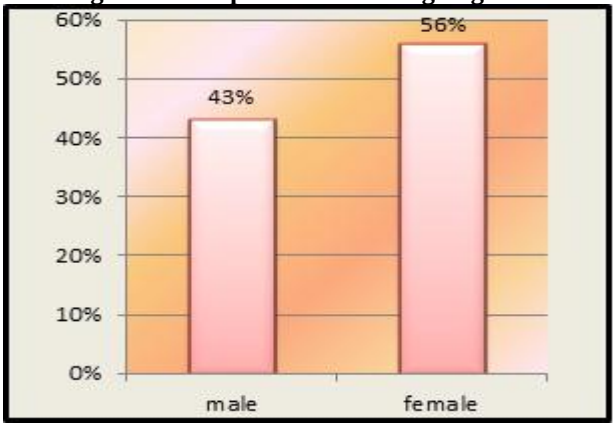


Figure 3. Comparison according to gender



CONCLUSION

In conclusion, those suffering from depression are mainly found to be the victim of this strange syndrome, therefore, it is essential to maintain a low threshold for suspicion of organicity and to consider appropriate neurological investigations in patients presenting with these symptoms.

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CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest.

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