Abstract : Cotard's syndrome is a rare syndrome characterized by the presence of nihilistic delusion. This syndrome though typically related to depression, is also seen in other psychiatric disorders like schizophrenia. Usually presents in middle and old age. Few cases have been reported in young people. This is a case report of a young female who presented with Cotard’s syndrome and treated effectively with pharmacotherapy.

Keyword : Cotard's syndrome, nihilistic delusion, depression

In 1880 Jules Cotard presented the case of a 43 year old woman who believed that she had 'neither brain, nor nerves, nor chest, nor intestines (entrails) and that her body consisted of just skin and bones' and that 'neither God nor devil exist', and in addition that she didn't need food and that 'she was eternal and would live forever'. Cotard diagnosed that she suffered from "lypemania" (a term partly correspondent with psychotic depression). He presented this delirium of hypochondriasis (delire hypochondriaque). He believed that he had identified a new kind of depression characterized by anxiety (anxious melancholia), hypochondriac ideas, a belief that various organs of the body were destroyed as well as the soul itself, ideas of eternal condemnation and immortality, anesthesia to the pain and a suicidal and, self-destructive behavior. Two years later Cotard, referred it as "delirium of denial" (delire des negations). In 1893 Regis presented the view that the syndrome could accompany more psychological disorders other than melancholy and named it "delire de negation" (delire des negations). The present term 'Cotard's syndrome' was first used by Seglas in 1897 in his book Le Delire de Negation 4. Berrios and Luque studied 100 cases of Cotard's syndrome and proposed a classification consisting of 3 groups : The first is a form of psychotic depression in which anxiety, melancholia, delusions of guilt, and auditory hallucinations are the more prominent features. Second, they described Cotard's syndrome type I, which is associated with hypochondriac and nihilistic delusions and absence of a depressive episode. The third is Cotard’s syndrome type II, in which anxiety, depression, auditory hallucinations, delusions of immortality, nihilistic delusions, and suicidal behavior are characteristic features. They concluded this picture as a syndrome rather than a disease. The most prominent symptomatology of Cotard’s syndrome are depressive mood (89%), nihilistic delusions concerning one's own body (86%), nihilistic delusions concerning one's own existence (69%), anxiety (65%), delusions of guilt (63%), delusions of immortality (55%), and hypochondriac delusions (58%) 14.

Theoretical explanation for Cotard’s syndrome
Psychopathological feature or mechanism possibly related to nihilistic delusion - possible psychobiological mechanisms 5

1. Over activation of amygdala and inhibition of left prefrontal cortex possibly correlate with sustained negative emotions experienced as sadness and fear.
2. Conscious processing of sensory and internal milieu information might be inuenced by emotional systems and lead to delusional interpretation of internal or external events
   - Depersonalization and derealization
   1. Damage of temporoparietal areas of the right cerebral hemisphere and bilateral frontal lobe dysfunction may produce impairment on face processing tests and other problems, heightening feelings of unreality, and other problems involving delusional misidentification.
   2. Left prefrontal cortex inhibition of basolateral amygdala nuclei (and indirectly other structures such as the anterior cingulate cortex), with simultaneous disinhibition of centro-medial amygdala nuclei (and excitation of aminergic nuclei leading to activation of right prefrontal cortex)
   - Two-factor model of delusional belief
   1. Prominent role of the connections between occipito-parieto-temporal cortices and the limbic system in the production of emotional responses to sensory stimuli.
   2. Prominent role of right frontal, temporal, and parietal cortices in belief evaluation
      - Self-misattribution errors (internalizing biases) No current evidence for a focal distribution in the brain or a particular neural system involved in this task
      - Data-gathering biases No current evidence for a focal distribution in the brain or a particular neural system involved in this task
      - Failure to inhibit a pre-potent doxastic response No current evidence for a focal distribution in the brain or a particular neural system involved in this task

Cotard’s syndrome is commonly reported with depression, though it is also reported with psychotic disorders, several organic conditions like dementia, mental retardation, cerebral infarction, brain tumors, temporal lobe epilepsy, migraine, cerebral arteriovenous malformations, multiple sclerosis, Parkinson’s disease. There are few Indian case reports of Cotard’s syndrome. One case report of an adolescent boy (14 years old) who developed recurrent depression associated with
Cotard’s delusion following complex partial seizure at the age of 7 years responded well to Carbamazepine 7. Another is a case study of a young pregnant woman from Kashmir, who presented with Cotard’s syndrome 8. Third case report is of an elderly female from Kolkata, who manifested the phenomenon of Cotard’s syndrome in the background of depression 9. It is usually seen in middle-aged and older people. Few case reports show younger age of onset with almost 90% being female. Here is the case presentation of a young female with Cotard’s syndrome.

CASE REPORT
Ms. X is a 23 year old married female, separated from her husband within one year of marriage, living with her parents with her 5 year old daughter. Everything was going well in her life until she attended a family wedding. After the wedding she was found dull, withdrawn, not interacting with her family members as before, but managed to go job. Slowly her sleep deteriorated and stopped going job as she felt exhausted. Meanwhile she expressed her feelings of unworthiness in life and worry about her daughter’s future. Within a week’s time she refused feeds claiming that she is dead and all her body organs stopped functioning. She said she was a walking corpse and had no need to eat or sleep. She remained at home not even taking care of her personal hygiene and grooming. She lost significant weight in one month. Following these, she started hearing multiple male and female voices saying that she was dead, neither she nor the world existed anymore. She was taken to various magico-religious practices for these problems and was brought hospital only after 5 months of onset of symptoms. There were no psychiatric complaints in her past and family history revealed no psychiatric illness or substance dependence. She was a person who managed her family all alone and never worried much for her problems in life premorbidly. When she was brought to the psychiatry department a thorough physical examination was done. Her vitals were stable, systemic examination was normal. She was adequately claud. During conversation, she spoke relevantly but the quantum, tone and rate of her speech was reduced. She took long time to reply. She had nihilistic delusion, believed that she was dead and the soul left her body long back. She claimed that she could not perceive any emotion as she was dead. Her affect was blunted and auditory hallucination of male and female voices saying that neither she nor the world existed anymore. Investigations were done to rule out any possibility of organic brain lesion. CT brain showed no abnormality and thyroid function test showed euthyroid state. She was started on T. Escitalopram 20 mg and T. Olanzapine 5 mg per day. Since her parents were not willing for inpatient treatment, she was asked to come for review after 2 weeks when the dose of medications was increased, T. Escitalopram 30 mg and T. Olanzapine 10 mg per day. After 2 months of regular medications she showed significant improvement, started believing that she was alive and was able to perceive emotions and expressed sadness about her life and worry about her daughter’s future. The nature of her illness and the need for continued treatment was explained to her and her parents. She was maintained on the same dose of medications. Within 4 months of treatment she started going job and reported to be better.

DISCUSSION
Cotard’s syndrome usually presents in middle and older age, incidence increasing with age. But this paper presents a case of Cotard’s syndrome in a young female, who was treated effectively with pharmacotherapy. Many older case reports show electroconvulsive therapy as the effective treatment modality in Cotard’s syndrome 10, 11. In young patients Cotard’s syndrome is often a part of bipolar disorder 12, 13. Hence regular follow-up was advised, explaining her parents about the symptoms and risk of bipolar disorder. The awareness of psychiatric disorders need to be increased in the community as there are still many people who believe these symptoms to be the effect of evil spirits going to magico-religious practices, delaying the diagnosis and early intervention of psychiatric disorders.

REFERENCES