Eur Psychiatry 2002 ; 17 : 108-9

S0924933802006375/COR

LETTER TO THE EDITOR

Biological basis and staging of Cotard's syndrome

H.S. Duggal, K. Jagadheesan, S. Haque Nizamie*

Central Institute of Psychiatry, Kanke, Ranchi - 834 006, Jharkhand, India

(Received 26 February 2001; revised 9 October 2001)

Sir,

Recently, there has been a resurgence of interest in Cotard's syndrome [1, 2, 11]. In addition to exploring its biological basis [5-7, 9], an attempt has been made to stage this syndrome [11]. A case of Cotard's syndrome is described keeping in the background the recent trends in its neurobiological underpinnings and staging.

A 32-year-old man, having a history of bipolar disorder in a maternal aunt, presented with illness of about 14-month's duration. To start with he had sudden onset of strange sensations inside his head and abdomen. Simultaneously he became sad and developed poor sleep and appetite. Within the next 3 weeks, patient developed a firm conviction that he had no brain and heart. At that time, following visualization of a hallucinated scene depicting him having sexual intercourse with his wife, he became anxious and consulted a local practitioner. He did not find any improvement with the prescribed sedative pills; rather, his depressive symptoms worsened and hence he consulted us.

Physical examination was normal and so were blood investigations, ECG and CT scan of brain. EEG showed nonspecific background abnormalities. Following elevated Bender's visuomotor gestalt test scores, the Strub and Black battery [10] was performed, which revealed frontal and parietal lobe dysfunction (constructional apraxia). Psychiatric examination revealed anxious and irritable affect, prominent nihilistic delusions that he had no brain and heart and delusion of persecution. Besides his depressive cognition, he also recounted, retrospectively, a single episode of visual hallucinations.

Treatment was initiated with amitriptyline 25 mg/d and flupenthixol 3 mg/d. Within 2 days of starting these drugs, he developed manic symptoms, hence, amitriptyline was stopped and valproate was started. Surprisingly, his nihilistic delusions disappeared within these 2 days, though persecutory delusions persisted. Following the resolution of mania with sodium valproate (600–800 mg/d) and flupenthixol (3 mg/d), he was discharged from the hospital.

In addition to the denial of the existence of vital organs, a type of nihilistic delusion, the patient also had other features which accompany Cotard's syndrome, namely, bodily sensations, visual hallucinations and suicidal ideation [3].

Denial of existence of normal body parts is a sign of parietal lobe dysfunction, which also occurs in the lesions of dorsolateral frontal lobe, cingulate gyrus, thalamus and neocortex (caudate and putamen) [4]. Notably, denial of organs is also the core feature of Cotard's syndrome and observed abnormalities of frontal and fronto-parietal [5-7, 9] suggest the possible involvement of these regions in the onset of nihilistic delusion.

Similar to another report [11], the longitudinal profile of our patient's illness can also be divided into germination stage (depression, cenesthopathy and hypochondriasis), blooming stage (full development of

*Correspondence and reprints.
E-mail address: nizamie@bitsmart.com (S. Haque Nizamie).

symptoms of Cotard's stage) and chronic stage (systematization and change to paranoia with receding of depression). The chronic stage in this patient was cut short by the appearance of manic symptoms. Since seizures, artificial or natural [8], alleviate this syndrome, a similar role for manic switch noted in this case can be expounded considering that kindling is an accepted hypothesis for bipolarity.

REFERENCES

1 Berrios GE, Luque R. Cotard's delusion or syndrome?: a conceptual history. Compr Psychiatry 1995 ; 36 : 218-23.
2 Berrios GE, Luque R. Cotard's syndrome: analysis of 100 cases. Acta Psychiatr Scand 1995 ; 91 : 185-8.
3 Cotard J. Nihilistic delusions. In: Hirsch SR, Shepherd M, Eds. Themes and variations in European psychiatry: an anthology. Bristol: John Wright & Sons; 1974. p. 353-73.
4 Cummings JL. Clinical neuropsychiatry. Orlando: Grune & Stratton, Inc; 1985. p. 48-56.
5 Enoch MD, Trethowan WH. Uncommon psychiatric syndromes, 2nd Ed. Bristol: John Wright and Sons; 1979.
6 Joseph AB, O'Leary DH. Brain atrophy and interhemispheric enlargement in Cotard's syndrome. J Clin Psychiatry 1986 ; 47 : 518-20.
7 Joseph AB. Cotard's syndrome in a patient with coexistent Capgras' syndrome, syndrome of subjective doubles, and palinopsia. J Clin Psychiatry 1986 ; 47 : 605-6.
8 Malone K, Malone JP. Remarkable resolution of an uncommon psychosyndrome: epilepsy-induced remission of Cotard's syndrome. Ir J Psychol Med 1992 ; 9 : 53-4.
9 Petracca G, Migliorelli R, Vazquez S, Starkstein SE. SPECT findings before and after ECT in a patient with major depression and Cotard's syndrome. J Neuropsychiatry Clin Neurosci 1995 ; 7 : 505-7.
10 Strub RL, Black FW. The mental status examination in neurology, 3rd ed. Philadelphia: F.A. Davis Company; 1993.
11 Yamada K, Katsuragi S, Fujii I. A case study of Cotard's syndrome: stages and diagnosis. Acta Psychiatr Scand 1999 ; 100 : 396-9.