

## CATATONIC SYNDROME AS A COMPLICATION OF ENTERIC FEVER

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### ABSTRACT

*A person with enteric fever who developed neuropsychiatric complication of catatonia after the fever subsided is presented. The catatonic symptoms were not associated with any depressive or psychotic symptoms. The relevant literature is discussed.*

*Key words: Enteric fever, catatonia*

Catatonia is often seen in the course of many physical diseases besides the psychiatric disorders (Cummings, 1985; Ahuja, 2000). The many publications on the complication of typhoid fever make only scant references to its psychiatric manifestations (Breakey & Kala, 1977). In the following case report we describe a patient with typhoid fever and catatonic syndrome.

### CASE REPORT

A 21-year-old male, with no previous history of psychiatric illness, was brought to the medical casualty with a high-grade, continuous fever of 20 days duration. On admission, he was febrile, well-oriented, answering questions relevantly and his vital signs were stable. Systemic examination findings were within normal limits except for mild dehydration. There were no meningeal or neurological signs. Relevant investigations were as follows-TLC: 4200 per cmm; ESR: 38 in first one hour; Na<sup>+</sup>: 126 MEQ/L; K<sup>+</sup>: 2.9MEQ/L; Random Blood Sugar 128 mg/dl; Urea 32 mg/dl; Aspartate Transferase 317 IU/L; Alanine transferase 172 IU/L; creatine

kinase 424 IU/L; Widal positive (1.320; H & O); HIV negative and Leptoantigen negative. Cerebrospinal fluid studies were within normal limits. No malarial parasites were seen. Mild hepatomegaly was observed in ultrasound scan of abdomen. CT Scan of brain was normal.

He was started on ciprofloxacin (1000 mg per day) along with other supportive measures. Fever persisted on the second day and ciprofloxacin was replaced by ceftazidime (2 gm per day). Electrolyte disturbances were corrected. By the fourth day he became afebrile and all biochemical parameters were normal. However, the patient was not talking and was withdrawn, so he was referred for psychiatric consultation. On examination, he was found to be mute, he had psychomotor retardation, expressionless facies and posturing. Bush Francis Catatonia rating scale score was 4 indicating catatonia syndrome (Bush et al., 1996). A diagnosis of organic catatonia due to enteric fever was made. He was prescribed 4 mg of Lorazepam per day in divided doses. His catatonic features improved in 36 hours. He was re-evaluated for any syndromal psychiatric disorders. There were no psychotic features. He

had depressed affect, psychomotor retardation, decreased sleep, decreased appetite, and poor interaction. There were no depressive cognitions. Though there was no syndromal depression considering above symptoms he was started on Imipramine 50 mg/day. Lorazepam was tapered and stopped in 7 days. On the first follow-up a week later, he showed no symptoms of depression and had returned to his pre-morbid level of functioning. Imipramine was stopped at 6 weeks. There were no further complications. However tests for biochemical parameters were not repeated. He was last seen by us 3 months after this episode, and at that time he was fully functional, with normal affect and psychomotor activity.

## DISCUSSION

Neuro-psychiatric complications reported in enteric fever range from the classically described "coma vigil" to the frank schizophreniform psychoses. Presence of catatonia along with other psychiatric syndromes has been found by Breakey & Kala (1977) Skrabnek (1977) and Muhangi (1972). However there was no description of a catatonic syndrome persisting after the fever subsided in a study of 959 patients by Osuntokun *et al.* (1972). In a series of 50 patients, Hafeiz had described delirium & depression as the common complications; catatonia was seen in 16% of the cases (Hafeiz, 1987). In India 12 (5%) cases of catatonic syndrome was reported in 238 patients with enteric fever (Breakey & Kala (1977). Ahuja (2000) suggested that enteric fever could be an under-recognized cause of organic catatonia. It may be highlighted that the index case had no syndromal depression, though catatonic syndromes are often associated with affective illness as stressed by Kahibaum (Ahuja, 2000). Catatonic syndromes as distinct entities without mood disorders and psychosis are being recognized more frequently (Benegal *et al.*, 1993, see Ahuja, 2000).

The index case developed catatonia in the third week of enteric fever. He did not have

associated delirium & syndromal depression as commonly reported. The catatonia is unlikely due to the high fever as it started three days after the fever had subsided. Various etiopathogeneses have been considered for the neuropsychiatric manifestations of catatonia. While speculations that they may be caused by a single factor such as a high temperature, a bacterial toxin, a metabolic deficiency or a susceptible personality are attractive, they have not been fully substantiated. A multifactorial causation seems more likely and the factors involved may be physical, psychological or both. We did not find any report of catatonia with ceftazidime. Ciprofloxacin induced catatonia has been reported by Akhtar and Ahmad (1993). However the index case received ciprofloxacin for 1 day only and ceftazidime for 7 days. Considering the above facts it may be considered the neuropsychiatric complication of enteric fever per se or the associated metabolic complications along with the antibiotics may manifest as catatonic syndrome.

It may be difficult to find single etiological factors in these cases. Comparison of various factors in patients with enteric fever with or without neuropsychiatric manifestations in a prospectively designed study may yield specific factors.

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