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Commentary

Catatonia was first described in 1874 by Karl Ludwig Kahlbaum in "*Die Katatonie oder das Spannungsirresein*," ("Catatonia or tension-insanity").[1] The current *Diagnostic and Statistics Manual* (DSM-TR-IV) and DSM-V describe catatonia, not as a separate disorder, but as a subtype of an underlying disorder (cf. "with psychotic features").[2,3] The essential features of catatonia are marked psychomotor disturbance. The clinical picture is dominated by at least two of five pathological signs: (1) Motor immobility, (2) excess motor activity, (3) extreme negativism or mutism, (4) peculiarities of voluntary movement, and (5) echolalia or echopraxia. In the late 19th century, the prevalence in hospitalized psychiatric patients ranged from 6% to 38%.[2] The current incidence in psychiatric inpatients is estimated at 5%-20%. However, primarily due to a lack of recognition and knowledge, catatonia might be grossly underdiagnosed.[4] Described predominantly in schizophrenia, catatonia was long believed to be unique to this disorder.[1] We now know this to be incorrect: It is seen in a wide range of psychiatric and medical conditions. Most cases (25%-50%) occur in mood disorders, 10% in schizophrenia, and the rest in other mental disorders.[5] Moreover, catatonia can (1) occur in various metabolic, neurological, and infectious diseases, (2) be a side effect of medication, and is (3) notorious in neuroleptic malignant syndrome, Stauder's lethal Catatonia, and anti-NMDA receptor encephalitis.[1]

Although catatonia has been around for a long time, data regarding its treatment with psychotropic medication in bipolar disorder remain scarce. (*Pubmed search April 2014 with MeSH terms "catatonia"/AND/"mood disorders/OR/bipolar disorders" resulted in 294 hits. Nine of which were clinical trials, including only two regarding pharmacologic treatment of catatonia in bipolar disorder).*

Data on pharmacologic treatment of catatonia in bipolar disorder in rural practice are almost nonexistent.

The current case report of colleague Muneer entitled "Catatonia in a patient with bipolar disorder type I,"[6] is therefore very welcome. It describes a postmenopausal woman with a lifelong history of bipolar disorder developing catatonia during a depressed episode, her refractoriness to conventional mood stabilizers, and finally her response to levetiracetam [Keppra, Union chimique belge inc] in a dose of 750 mg twice daily. The motivation to select this drug was manifold: (1) Lorazepam (effective in treating catatonia) in its parenteral form was unavailable; (2) the treatment team had no experience with this treatment; (3) the patient showed refractoriness to conventional mood stabilizers; and (4) levetiracetam was available. Levetiracetam ((S)-α-ethyl-2-oxo-1-py rrolidine acetamide) is a pyrrolidonderivate and has a favorable pharmacokinetic profile, the drug is only partly metabolized (24%, to an inactive metabolite) and is excreted through the kidneys.[7] It is generally well tolerated, but possible side effects include nasopharyngitis, headaches, drowsiness, and fatigue. It is a potential mood stabilizer as well, due to its effect on glutamate and GABA. The mechanism of action is not fully understood but *in vitro* assays on crude membranes suggest that levetiracetam selectively binds to brain cell membranes in a reversible, saturable, and stereoselective fashion.[7] In India, it is relatively inexpensive as well (lowest price found: 49 Indian Rupees, 0,81 US dollar per 10 tablets 250 mg).

The strength of this article resides in the clear and unique case description, the well-justified choice of levetiracetam, and of course the successful patient outcome. There are weaknesses as well, which are addressed by the authors themselves: (1) Serum carbamazepine and valproate levels were not part of the laboratory workup, leaving it unclear if the patient showed refractoriness to these drugs with normal serum levels, or received a too low dosage. (2) Psychiatric evaluation was only used to assess the catatonic state and not in combination with a standardized catatonia tool as well, possibly leading to observer variability. Two final remarks: (1) Catatonia induced by levetiracetam has also been described.[8] (2) Because levetiracetam, used as a mood stabilizer, has not been extensively researched, it remains unclear if levetiracetam truly is effective and safe in treating catatonia in bipolar disorder. After all: one result is no result and the favorable outcome can simply be a benign natural course. We will always need confirmation studies before a new finding can become a scientific fact.

This case report is a further, but small, step in exploring other treatment options of catatonia in bipolar disorder. Specifically in rural practice, where certain treatment options frequently are unavailable. It also offers a possible new treatment for patients who refuse electroconvulsive therapy, or have a contraindication for this procedure. A lot of questions regarding catatonia and its treatment are still unanswered but the author has provided us with a new possible treatment that deserves further exploration. For this, we are grateful to the author and editor, and we conclude with Cicero's "Quid deinde" ("What is next"?).

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