# Commentary: The Evolution of Treatment in Catatonia

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Many residents in psychiatry may go through training never having to make a diagnosis of catatonia, even though they may have to make a diagnosis of catatonic excitement in schizophrenia or a mood disorder with catatonic features. Catatonia due to a general medical condition is less likely to be diagnosed by the psychiatrist.

Catatonia was described as far back as 1874 by Karl Kahlbaum, who viewed it as a disorder that went through different phases and ended in dementia.[1] Hence, it was seen as an organic mental disorder. The word is derived from the Greek "to stretch tightly" and the associated catalepsy is also from the Greek, which means "a seizure of body and soul." The symptoms varied, but mutism, negativism, and waxy flexibility with decreased sensitivity to pain were highlighted. It was Kraepelin[2] and Bleuler[3] who introduced catatonia as a subtype of schizophrenia. They moved away from the organic basis and saw the disorder as psychological blocking. This thinking is represented in DSM-IV. It is now accepted that catatonia could be part of an organic state and other psychiatric disorders. Consequently, neurologists are now aware that they may have to treat this disorder. Many of them see the stupor of catatonia as bordering on coma, whereas psychiatrists tend to view the stupor as a relative preservation of consciousness.[4] A simple definition of catatonia is an abnormal mental state associated with the cataleptic phenomena of akinesia, posturing, and mutism.[4]

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The psychiatrists who were called on to treat the patient in the case study reported by Bostwick and Chozinski[5] in this issue of the Journal would have acted differently in 1963 and still more differently in 1988, 25 years later. In 1963, electroconvulsive therapy (ECT) would have been in use for 25 years. During that period, acute catatonic schizophrenia seemed more prevalent, and ECT would have been the logical treatment procedure. In that same era, the clinician might have taken a chance and initiated a treatment thought to be appropriate without having the patient's full consent.

In 1988, 25 years later, with the new antipsychotic and anxiolytic drugs available, the clinician might have seen this as an opportunity to avoid ECT. In this case, the psychiatrists used pharmacotherapy to restore mental capacity and then moved on to use ECT. This is indeed a special combination of two treatment modalities, and each modality was predominant at different eras in psychiatry.

One notes from the onset that the psychiatrists were on active military duty, as was the patient, who had no relative available. The psychiatrists must be complemented for quickly finding a method to draw this patient out of catatonia.

Catatonia is primarily a state of mutism and stupor, and effective communication is impossible. It is viewed more as a feature of the two major psychotic disorders: Schizophrenia and Bipolar Disorders. Classic catatonic schizophrenia with waxy flexibility and posturing is now seen less frequently. In the rural areas of some less-developed countries, this presentation continued longer, presumably because of cultural factors. Demon possession has been used as an explanation for that state, and in these cases, such persons were neglected rather than given active medical care.

ECT is the most invasive procedure that psychiatrists use. It involves anesthesia, muscle relaxants, the application of electrodes to the head, and the passage of a current between the electrodes. The mechanism of its effectiveness is not understood. It has been in use for approximately 64 years, and it is now considered a safe procedure. There is little doubt about the effectiveness of this procedure in Mood Disorders but it is often not recommended as the first line of treatment. In the case reported by Bostwick and Chozinski,[5] it was the treatment of choice after a benzodiazepine failed to maintain the patient in an improved state.

One might assume that there was a limited variety of antipsychotic medicines available, given the circumstances. There was no doubt that there was a well-functioning ECT machine available and the psychiatrists were comfortable with the procedure. Posturing, rigidity, and catalepsy usually show marked improvement in three to five treatments with ECT, and hence the psychiatrists chose to use this method. It is a matter of preference and speed of response, but continued use of lorazepam and the addition of an antipsychotic drug might have worked as well.

As stated by Bostwick and Chozinski,[5] before administering ECT to a patient, the clinician is required to have a thorough discussion with the patient and, if possible, with a relative. The procedure should be done only after informed consent by the patient or guardian is documented in writing. In this case it was not possible to obtain consent. In Texas, where the patient was treated, in the absence of the patient's consent, the psychiatrists must obtain a court determination of incompetency. In an emergency, ECT can be administered but only a partial course.

One agrees that antipsychotic drugs can worsen catatonia when the disorder is a component of Neuroleptic Malignant Syndrome. In this case, the catatonia was not drug-induced, and therefore use of an antipsychotic was unlikely to worsen the condition. There was no history of a previous episode. It was therefore very unlikely that the patient was taking any antipsychotic drugs. The patient responded to antipsychotic medication from day five up to the three-month follow-up examination. In the case of this patient, it was the use of an anxiolytic drug that temporarily restored a sound mind. The use of the drug broke the treatment impasse and allowed the psychiatrists to give a full course of ECT. As the authors put it, the intervention created ethical windows of opportunity.

The immediate response that the patient had to intramuscular lorazepam, followed within two hours by an unresponsive state, is to be expected. Lorazepam is an intermediate-acting high–potency benzodiazepine that is effective in treating anxiety states and is also recommended in the treatment of catatonia. With an elimination half-life of 8 to 24 hours and peak plasma levels attained 45 to 75 minutes after intramuscular injection, blood levels decline quickly after discontinuation. It is not surprising that within two hours of the administration of lorazepam the patient relapsed. The resident thought that the patient could have had an anxiety disorder, and in support of this diagnosis, one can say that he was abreacted by lorazepam when he "admitted to dread at having to return to his unit" (Ref. 5, p 372). His condition started with his inability or unwillingness to respond to his superiors. After lorazepam, he continued with this theme, which supports the diagnostic thinking of the resident.

Five days after admission, his response to lorazepam was even more dramatic, and his catatonic state almost dissipated. The response to 3 mg of lorazepam was very good, and the patient expressed his awareness of his catatonic state. The psychiatrists then had to make the decision of whether to go the route of medication or use ECT.

The patient's psychotic symptoms of paranoid ideas and ideas of reference were revealed. Hence, it was not surprising that he needed risperidone on a long-term basis. The authors' preference for ECT in treating catatonia is very clear. In addition to the medication he was given 15 treatments in four weeks. There are many treatment centers with no facilities for administering ECT, and catatonia has to be managed with medication.

Lorazepam has been administered intravenously in the treatment of catatonia in patients who had failed to respond to antipsychotic medication. Ripley and Millson[6] had a similar experience when they used intramuscular lorazepam to treat a patient with schizophrenia in whom catatonia had not responded to antipsychotic medication, antidepressants, or ECT.

The approach used by the psychiatrists may be more effective than medication alone, but the legal issues make the situation more complex. From the description in the article, one can conclude that the patient demonstrated the necessary understanding and judgment to consent to ECT. There is little doubt about the safety of the therapy.[7] The decline in the use of ECT ended in the United States in the 1980s. One might argue that so much was achieved with abreaction from the lorazepam that the clinician was able to identify all the symptoms necessary to know that there was underlying psychosis that would require antipsychotic medication. It is possible that a combination of a benzodiazepine and an antipsychotic drug would have been an easier therapeutic route than having to deal with the relevant legislation in Texas.

There are centers outside of the United States where combinations of intramuscular lorazepam and haloperidol have been used in catatonia. A quick response to treatment of catatonia can also be obtained by using the thioxanthene, zuclopenthixol acetate, which reaches peak plasma levels in two to three days, in conjunction with lorazepam.

Bostwick and Chozinski[5] emphasize that in the absence of an advanced directive or living will, when such an incompetent state could not have been anticipated, their patient was able to benefit from a treatment that was not initially available to him because of his impaired mental state.

## References


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