

Caso clinico

Life-saving electroconvulsive therapy in a patient with near-lethal catatonia

Terapia elettroconvulsiva salvavita in un paziente con catatonia quasi letale

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SUMMARY. A young woman with bipolar I disorder and comorbid catatonia on enteral nutrition from several months, developed a form of near-lethal catatonia with weight loss, pressure sores, muscle atrophy, electrolyte imbalance, and depression of vital signs. A compulsory treatment was necessary, and informed consent was obtained from her mother for electroconvulsive therapy (ECT). After 7 ECT sessions, the patient recovered and resumed feeding. ECT may save the life of a patient with catatonia provided that legal obstacles are overcome. Clinicians should carefully evaluate patients with near-lethal catatonia, taking into account the risk of pulmonary embolism or other fatal events. The medical-legal issues, which vary across state regulations, should be addressed in detail to avoid unnecessary and potentially harmful delay in intervention.

KEY WORDS: catatonia, lethal catatonia, bipolar disorder, ECT, informed consent.

RIASSUNTO. Una giovane donna con disturbo bipolare I in comorbidità con catatonia, costretta a ricevere nutrizione enterale per diversi mesi, ha sviluppato una forma di catatonia quasi letale, con perdita di peso, piaghe da decubito, atrofia muscolare, squilibrio elettrolitico e rischio di deterioramento dei segni vitali. Abbiamo effettuato un trattamento sanitario obbligatorio e ottenuto il consenso libero e informato dalla madre della paziente per effettuare terapia elettroconvulsiva (ECT). Dopo 7 sedute di ECT, la paziente ha ottenuto la remissione e ha ripreso l'alimentazione autonomamente. L'ECT può salvare la vita di una persona con catatonia, a condizione che gli ostacoli legali siano rimossi. I medici devono considerare attentamente i casi di catatonia quasi-letale, valutando i rischi di embolia polmonare o di altri eventi fatali. I problemi medico-legali, che variano da Stato a Stato, dovrebbero essere studiati e valutati attentamente, al fine di evitare inutili e nocivi ritardi nell'intervento.

PAROLE CHIAVE: catatonia, catatonia letale, disturbo bipolare, ECT, consenso informato.

INTRODUCTION

Catatonia is characterized by diverse and often contradictory symptoms, like psychomotor arrest (catalepsy, including waxy flexibility) or hyperactivity, extreme negativism and mutism or echolalia and echopraxia, stupor or severe excitement, opposition or automatic

obedience. In addition, patients may show stereotypies, mannerisms and posturing, or mimicry. Potential self-harm or aggression, temperature dysregulation, and malnutrition during catatonia need careful supervision. In most severe cases, there is a risk for lethal catatonia, which may rapidly bring to death, if not adequately treated.

Electroconvulsive therapy (ECT) is a safe and effective treatment for both catatonia and lethal catatonia (1-3).

We here describe a case of near-lethal catatonia with complete psychomotor arrest causing gradual weight loss, pressure sores, muscle atrophy, electrolyte imbalance, and altered vital signs. The patient succeeded in remitting completely after seven ECT sessions.

CASE REPORT

In April 2011, a 26-year-old Ukrainian woman was admitted to our clinic, due to severe catatonic symptoms.

Psychiatric symptom onset could be traced back to age 19, when she developed depressive mood, social withdrawal, and impaired overall functioning.

Three years later she came in Italy, but in concomitance with problems at her workplace, she developed dysphoria, bizarre behavior, transient confusion and both auditory and visual hallucinations. These symptoms culminated in a dissociative fugue, which required 20 days of hospitalization. She was discharged with a diagnosis of manic episode with psychotic symptoms.

From Spring 2008 to Summer 2009 she returned to Ukraine, where she was hospitalized thrice and treated with long-term antipsychotic drugs.

In April 2010, she returned in Italy, and was again admitted for psychomotor inhibition, oppositional behavior, negativism, and delusions with mystic content. She was discharged in June with only partial relief and was soon readmitted to the same department due to exacerbation of catatonia, delusional ideas, and refusal to eat and drink. In September 2010 she was started on total enteral nutrition through a nasogastric tube. Between June 2010 and April 2011 she received various neuroleptic, atypical antipsychotic, antiepileptic drugs and high-dose benzodiazepines.

When admitted to our clinic the patient was mutacic, unresponsive to all stimuli, even the most painful, and was fed through a nasogastric tube. Her symptoms did not improve, despite appropriate psychopharmacological treatment. Due to weight loss, pressure sores, muscle atrophy, electrolyte imbalance, and risk for vital sign impairment, we decided to subject her to ECT. Since it was impossible to obtain informed consent from the patient due to her conditions, the patient was declared to be incapacitated. Her mother, as her legal tutor, decided to sign the informed consent, to allow her daughter to receive ECT.

Our practice of ECT was in line with the American Psychiatric Association's ECT Task Force recommendations (3). We used the Thymatron® System IV brief-pulse ECT instrument (Somatics LLC, Lake Bluff, IL). Bilateral temporal ECT was administered three times per week. Anesthesia was induced through 15 mg intravenous midazolam and muscle relaxation through 100 mg intravenous succinylcholine. The stimulus parameters of ECT were as fol-

lows: pulse width, 1 ms; frequency, 50 Hz; and constant current, 0.9 A. Mean charge was 226.8 millicoulombs and mean seizure length 45 seconds. Seizure duration longer than 25 seconds was acceptable. Maximum clinical benefit was obtained at treatment termination. Appropriate ventilatory assistance with 100% oxygen was provided throughout the procedure.

From the very first session, the patient showed moderate signs of reactivation, sometimes responding to simple questions and moving independently. After the third session the patient was able to maintain the upright position and to ambulate, she regained verbal and motor activities and was able to give an account of her personal life, although fragmentarily. After the fifth ECT session, she started feeding herself on her own and the nasogastric tube was withdrawn.

ECT was rated to be effective after the seventh session, which was followed by symptom resolution, especially the most serious ones.

DISCUSSION

We described life-saving ECT in a patient with bipolar disorder and a form of catatonia that worsened during the course of several months, until progression to near-lethal catatonia.

Catatonia is associated with excess early mortality when it is unrecognized or inadequately treated. The characteristics of the lethal catatonia subtype are well described, but the excess mortality, mainly from pulmonary embolism (4), of the remaining patients with catatonic syndrome is ineffectively recognized.

ECT has proved to be effective in the treatment of catatonia (5,6); both the American Psychiatric Association (APA) (7) and the National Health System (NICE) (8) guidelines agree to its usefulness in treating lethal catatonia with ECT and strongly recommend its use. Patients respond promptly to ECT, as assessed with the Catatonia Rating Scale (5). Despite strong evidence (9), in some countries, especially in Italy, many clinicians consider it an unethical procedure based on ideological, rather than on scientific evidence. Hence, precious information about this treatment option is often withheld and patients do not realize that ECT may constitute a life-saving procedure in emergencies like lethal catatonia.

Another ethical problem with obtaining informed consent often characterizes catatonic syndromes. In this case, we preferred to declare the patient as incapacitated, and to treat her compulsorily, after having obtained an informed consent by her legal tutor, who in this case was her mother. Treating physicians

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should be aware of local legislations (10) to overcome bureaucratic obstacles that may endanger patients' lives.

In conclusion, ECT should be considered early in the course of catatonia to improve prognosis and to avoid serious or fatal complications, simultaneously taking into account legal implications.

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In the past three years, Stefano Ferracuti has participated in advisory boards for Pfizer and Lilly and received honoraria from Lilly, Bristol-Myers, Sigma Tau, Schering and Pfizer; Paolo Girardi has received research support from Lilly and Janssen, has participated in Advisory Boards for Lilly, Organon, Pfizer, and Schering and received honoraria from Lilly and Organon; Roberto Tatarelli has participated in Advisory Boards for Schering, Servier, and Pfizer and received honoraria from Schering, Servier, and Pfizer.

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