

# Succesful Treatment of Idiopathic Periodic Catatonia with Maintenance ECT: A Case Report

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## ÖZET:

İdame EKT ile başarılı bir şekilde tedavi edilen idiopatik periyodik katatoni: olgu sunumu

Katatoni daha önceleri şizofreni ile ilişkilendirilmesine rağmen günümüzde daha çok duygudurum bozuklukları ve genel tıbbi duruma bağlı nedenler ile daha çok bağlantılı bulunmaktadır. Periyodik katatoni ise katatonik dönemlerin sık ve sürekli olarak tekrarladığı nadir görülen bir katatonik sendrom tipidir. Katatoni patogeneğinde birçok mekanizma suçlanmıştır. Katatoni tedavisinde ilk tercih olarak benzodiyazepinler ve elektrokonvulsif tedavi (EKT) önerilmektedir. Bu yazıda idame EKT ile başarılı bir şekilde tedavi edilen bir periyodik katatoni olgusu sunulmaktadır.

**Anahtar sözcükler:** periyodik katatoni, psikotik depresyon, idame EKT

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## ABSTRACT:

Succesful treatment of idiopathic periodic catatonia with maintenance ECT: a case report

Although catatonia has been previously associated with schizophrenia, today it is more associated with mood disorders and general medical conditions. Periodic catatonia is a rare type of catatonic syndrome having frequently and constantly repeated catatonic episodes. In the pathogenesis of catatonia several mechanisms have been suggested. Benzodiazepines and electroconvulsive therapy (ECT) have been used as first line treatment in catatonia. We report about the case of a patient successfully treated with maintenance ECT in periodic catatonia.

**Keywords:** periodic catatonia, psychotic depression, maintenance ECT

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## INTRODUCTION

Catatonia is a syndrome having symptoms such as catalepsy, waxy flexibility, stupor, posturing, negativism, mutism and echolalia (1). Catatonia is separated into two subgroups, systematic and periodic, by some authors. This separation is descriptive and it hasn't been noted whether the groups are different in pathogenesis. Periodic catatonia is a type of catatonia which is characterized by acute onset, hyperkinetic and akinetic episodes, incomplete remissions and development of residual states of various degrees, rigidity of posture, grimacing, parakinesia, jerky motions and impulsive and negativistic behaviors

(2). Benzodiazepines and electroconvulsive therapy (ECT) are first line treatments in catatonia. (3). Maintenance ECT is a convenient and effective treatment to prevent new attacks when effective responses occur during the acute phase of affective, psychotic, and catatonic disorders (4). This report illustrates a case of periodic catatonia that stayed in remission with continuation and maintenance ECT for four years.

## CASE

Mrs. E.Y. was a sixty-five year old housewife, who was illiterate, married and had 9 children. She was brought by her relatives to the psychiatric

outpatient clinic with the complaints of not talking, failure to sleep, long time inactivity, refusal to eat, loss of appetite, loss of interest and social withdrawal for one month. According to the DSM-IV-TR she had a diagnosis of major depression with psychotic and catatonic features. On psychiatric examination of the patient, blunt mood, mutism, negativism, rigidity, and fixed posturing were observed. In the patient's history, there were nihilistic delusions, peris, social withdrawal, inability to enjoy life, poor appetite, talking to herself, insomnia, restlessness, and "nothing will be as good as it used to be". She had been admitted to the psychiatric ward of our hospital for the first time with major depressive disorder with psychotic and catatonic feature 6 years ago. After 7 ECT sessions, the patient benefitted from ECT. Later on maintenance ECT was applied once monthly. Along with ECT, pharmacotherapy with venlafaxine 150 mg/day, mirtazapine 30 mg/day, diazepam 10 mg/day and olanzapine 5 mg/day was continued. We started benzodiazepine along with ECT because in the treatment of catatonia benzodiazepines have beneficial effects. After a remission of 2 years, the patient's ECT frequency was reduced to every 45 days and insomnia, loss of appetite, aimless strolling, decrease in speech, talking himself, depressive, psychotic, and catatonic symptoms recurred and her ECT frequency was increased to 3 times a week again. After recovery, the patient was discharged with a recommendation for ECT maintenance sessions every 15 days and venlafaxine 375 mg/day, mirtazapine 30 mg/day, alprazolam 0.5 mg/day and olanzapine 10 mg/day treatment. With the recommended treatments the patient was in remission for 4 years but at her relatives' request, maintenance ECT was interrupted, and although her medications were used on a regular basis, she was not talking, and was withdrawn with a lack of drive, malaise, disrupted sleep, inactivity and aimless browsing and refusal to eat; the patient was re-admitted to the psychiatric ward with a diagnosis of major depressive disorder with psychotic and catatonic features. Depressed mood, apathetic facial expression, decreased self-care,

decreased eye contact and communication, reluctance to negotiate, and psychomotor retardation were observed in the mental status examination. Brain Magnetic Resonance imaging (MRI) and laboratory examinations were normal. Internal and neurological pathologies were not identified. At admission, the patient underwent a total of 31 ECT treatments. The patient stayed in hospital for 60 days. Twenty ECT sessions were administered 3 times a week in the first month, 2 times a week in the next month and continued once per week as a maintenance ECT program. Venlafaxine 375 mg/day was not effective therefore we gradually stopped venlafaxine and added sertraline 50 mg/day to the treatment and it was increased to 200 mg/day gradually. We added clomipramine 25 mg/day and increased its dose to 150 mg/day gradually because there was a partial response to sertraline 200 mg/day. In the process of dosage increase the patient was closely observed because there was a risk of serotonin syndrome. Alprazolam 1.5 mg/day was added to treatment because of the anxiety symptoms and mirtazapine 60 mg/day and olanzapine 15 mg/day were continued during the hospitalization. With these treatments, the patient's depressive symptoms and delirium improved. Her test scores were: HAM-D= 6, PANSS= 33 and CGI= 2. The patient was discharged and followed up as an outpatient with a ECT based maintenance program.

## DISCUSSION

In the pathogenesis of catatonia, dysfunction of GABA, dopamine hypoactivity, glutamate hyperactivity, autoimmunity and genetic predisposition have been hypothesized to be possible causes (5,6). Periodic catatonia may be idiopathic or may occur due to hypothyroidism (7). The patient did not have continuous muscle stiffness, fever and leukocytosis, therefore a differential diagnosis of neuroleptic malignant syndrome was excluded. Extrapyrimal symptoms (EPS) were not detected. Laboratory examination, MRI and EEG results were normal. There were no neurological or medical illnesses

considered to explain the current symptoms. The patient's consciousness and the observation of prolonged response time to questions, mutism, decreased motor activity, and extreme negativism were interpreted in favor of the catatonia diagnosis. Due to the fact that she experienced psychotic and catatonic depression, her illness was diagnosed as major depressive disorder with psychotic and catatonic features. In our case, maintenance ECT was continued with the current drug therapies in the treatment of the patient after the acute period. Cases of periodic catatonia that did not respond to lorazepam but improved with risperidone and cases which developed due to a general medical condition and were administered acute and maintenance treatment with mirtazapine and risperidone have been reported (8). Despite continued treatment with benzodiazepines, antidepressants and antipsychotics, the patient's catatonic symptoms recurred when sessions of ECT were discontinued

or interrupted, suggesting that maintenance ECT was an effective and necessary procedure. ECT is an effective treatment option in depression with psychotic features (9). Despite the fact that ECT is a safe and effective method in suitable patients and that high rate of relapses are seen after ECT, the use of maintenance ECT is not a common practice (10). Maintenance ECT is a safe treatment modality with protective effects in long term severe clinical conditions, such as major depressive disorder, mood disorders where the index episode responds to ECT, rapid cycling bipolar disorder and also the elderly and severe depression (11). In the literature, reports about the use of ECT are limited but there are studies reporting that maintenance ECT is a safe and effective method in autistic catatonia (4) and recurrent catatonia due to multiple sclerosis (12). In conclusion, our case report may show that acute and maintenance ECT sessions are effective in catatonia which can cause higher mortality risk in untreated situation.

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