CASE REPORT

Periodic Catatonia Coexisting with Hypothyroidism and Hypertriglyceridemia: A Rare Case Report and Diagnostic Challenges

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ABSTRACT

This case report describes periodic catatonia in a 34-year-old woman presenting with recurrent episodes of mutism and immobility, interspersed with periods of normalcy. Triggered by interpersonal conflict, her condition was further complicated by hypothyroidism, hypertriglyceridemia, and biological impairments such as urinary retention. Due to diagnostic overlaps with other neurological disorders, periodic catatonia requires thorough evaluation. Notably, the patient achieved significant clinical improvement through Electroconvulsive Therapy (ECT). This case underscores the necessity of screening for endocrine abnormalities in catatonic patients and highlights ECT's therapeutic efficacy. It advocates for a multidisciplinary approach that addresses both psychiatric and medical comorbidities to optimize treatment outcomes in complex cases of periodic catatonia.
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INTRODUCTION

The introduction to this case report aims to engage readers by presenting an in-depth examination of periodic catatonia, a condition that is both compelling and rare. This case report details a 34-year-old female with a clinical history marked by recurrent catatonic episodes interspersed with periods of apparent normalcy. These episodes were precipitated by stressors such as interpersonal conflicts, particularly an argument with her mother that led to a sudden and profound behavioral change. During these episodes, the patient displayed severe social withdrawal, mutism, and prolonged immobility, alongside significant biological impairments including fasting, immobility, and urinary retention.The diagnostic complexity of periodic catatonia is underscored in this report, as the condition can closely mimic other psychiatric and neurological disorders (1). This necessitates a thorough and careful evaluation for accurate diagnosis. A noteworthy aspect of this case is the patient's response to treatment, particularly the successful use of Electroconvulsive Therapy (ECT). This highlights the potential efficacy of ECT as a therapeutic intervention for periodic catatonia. Additionally, the patient's history of hypothyroidism and hypertriglyceridemia was considered, emphasizing the importance of assessing endocrine disorders as part of the differential diagnosis. This case report not only contributes valuable clinical insights into the manifestation and management of periodic catatonia but also underscores the significance of further research into the relationship between psychiatric and endocrine disorders. The report advocates for a multidisciplinary approach in diagnosing and treating complex psychiatric conditions to ensure comprehensive patient care.

CASE REPORT

This case report involves a 34-year-old female brought by her mother and younger sister with complaints of remaining silent and not verbally responding to family members, refusal to eat or drink, and not voiding urine or defecating for the past four days.The patient has experienced four previous episodes with similar complaints of remaining mute and not taking food. She had three prior admissions to SMCH, where she was diagnosed with a severe depressive episode with stupor catatonia. She received four sessions of Electroconvulsive Therapy (ECT) in August 2022, which led to temporary remission of symptoms.She is a known case of hypothyroidism, currently taking 50 mcg of thyroxine daily. Both her mother and sister also have hypothyroidism, indicating a significant family

history.The patient has had a strained relationship with her younger sister for the past year. Previously, she had a close and cordial relationship with her sister. The patient's premorbid personality was described as well-adjusted. Mental Status Examination (Kirby's Method) reveals Mutism- she is not speaking or verbally responding,Negativism- demonstrates resistance to instructions or attempts to interact,Posturing-she assumes unusual or rigid bodily positions. Higher Mental Function: Deferred as the patient is not cooperative. The case underscores the diagnostic complexities associated with periodic catatonia, which often mimics other psychiatric and neurological conditions. A meticulous evaluation is essential for accurate diagnosis. The patient's hypothyroidism is particularly noteworthy, as endocrine dysfunctions can significantly impact psychiatric presentations. In this patient, hypothyroidism could potentially exacerbate catatonic symptoms, necessitating a comprehensive approach to management that includes endocrine evaluation and treatment.The patient's long-term follow-up indicates a pattern of recurring catatonic episodes, suggesting the need for ongoing monitoring and possibly more frequent or prolonged courses of ECT. Further, regular endocrine assessments are crucial to ensure optimal thyroid function, which may help mitigate the severity of psychiatric symptoms.This case highlights the importance of considering endocrine disorders, such as hypothyroidism, in the differential diagnosis of periodic catatonia. It emphasizes the need for a multidisciplinary approach in managing such complex cases, involving both psychiatric and medical interventions to optimize patient outcomes.

DISCUSSION

The presented case highlights the diagnostic challenges associated with periodic catatonia, a syndrome characterized by a wide range of motor and behavioral abnormalities. The patient's recurrent episodes of catatonic symptoms, such as social withdrawal, refusal to communicate, prolonged immobility, and impaired biological functions, align with the criteria for periodic catatonia. However, it is crucial to acknowledge that the diagnosis of periodic catatonia is often one of exclusion. Clinicians must rule out other psychiatric and medical conditions that can mimic catatonia, such as schizophrenia, bipolar disorder, neurological disorders, and metabolic disturbances (2). A comprehensive evaluation is essential for accurate diagnosis. This includes a detailed clinical history, physical examination, and laboratory tests, such as: Complete Blood Count, Comprehensive Metabolic Panel ,Thyroid Function Tests, Magnetic Resonance Imaging (MRI) to exclude structural causes of catatonia (3). Collaborative research and reporting of cases like these will enhance our understanding of this enigmatic syndrome and improve patient care. Awareness of the existence of periodic catatonia is crucial for clinicians. Timely recognition can lead to appropriate treatment and better outcomes for patients . The patient has recurrent episodes of catatonic symptoms, such as social withdrawal, refusal to communicate, prolonged immobility, and impaired biological functions, align with the criteria for periodic catatonia. However, it is crucial to acknowledge that the diagnosis of periodic catatonia is often one of exclusion. Clinicians must carefully differentiate it from other psychiatric and medical conditions that can present with similar symptoms, such as schizophrenia, bipolar disorder, certain neurological disorders, and metabolic disturbances. Diagnosing periodic catatonia requires a thorough evaluation, including clinical interviews, physical examinations, laboratory tests, and neuroimaging when necessary .Educating patients and their families about the condition, treatment options, and the importance of medication compliance is vital for long-term success in managing periodic catatonia(4) . Cases of periodic catatonia contribute to our understanding of this rare condition and its underlying mechanisms. Continued research is essential to refine diagnostic criteria and treatment approaches .Periodic catatonia can significantly impact a patient's life. A holistic approach to care, addressing both psychiatric and physical health needs, is essential to improving the overall well-being of individuals with this condition (5).

CONCLUSION

This case report highlights a rare and complex instance of periodic catatonia in a young female, emphasizing the diagnostic challenges due to its episodic nature and symptom overlap with other conditions. The patient's positive response to electroconvulsive therapy (ECT) illustrates its potential effectiveness. This case underscores the importance of considering interpersonal conflicts and family dynamics in the management of catatonia. Future research should focus on developing standardized diagnostic criteria, exploring the underlying mechanisms of periodic catatonia, and investigating the long-term efficacy and safety of various treatment modalities, including ECT. Continued studies are essential to improve diagnostic accuracy and therapeutic strategies, ultimately enhancing patient outcomes.

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