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Case Report

Case Report: Post-Infectious Myasthenic Syndrome in an 18-Year-Old Patient

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Abstract

This case report presents an 18-year-old Caucasian man with new-onset neurological diplopia, dyspnea and dysphasia following a tick bite during a camping trip. The case underscores the potential for post-infectious neuromuscular disorders resulting from infectious agents such as Lyme disease and highlights the importance of timely diagnosis and appropriate treatment.

Keywords: shndrome, neuromuscular disorders

Presentation

18 years old Caucasian man with no significant past medical history , was seen in neurology clinic for new onset diplopia and dysphasia and shortness of breath. The patient has no family history of neurological disorder . The physical exam showed bilateral ptosis , binocular horizontal diplopia , and abnormal swallowing and articulation. No focal motor or sensory deficit was observed. The pulmonary function test showed restrictive abnormalities with reduced volumes . Upon further questioning the patient was in camping trip in the northeast 3 weeks before the symptoms begin and was bitten by a tic and developed a rash . He did not seek medical attention then. The labs showed positive acetylcholine receptors antibodies , positive acetylcholine binding antibodies and positive IGM Lyme serology in the serum . The Infectious disease specialist was consulted . The patient was hospitalized , he was started on IV antibiotics with ceftriaxine . He was started on mestinon with improvement of the myasthenic symptoms . The patient received 2 weeks of oral antibiotics after being discharge from the hospital . 3 weeks after finishing the oral antibiotics, the patient became asymptomatic. The pulmonary functions test normalized . The labs normalized with negative acetylcholine receptors and bindings antibodies on 3 times with 3 months interval . The patient remained asymptomatic for 1 year follow-up till present .

Discussion

This case highlights the potential for post-infectious neuromuscular disorders following Lyme disease and similar infections. The positive acetylcholine receptor antibodies supported a diagnosis of myasthenia gravis-like syndrome triggered by the infection. Timely administration of appropriate antibiotics and symptomatic treatment with Mestinon resulted in a favorable outcome.

Conclusion

This case emphasizes the need for awareness of post-infectious neuromuscular disorders, especially in patients with a history of tick exposure. Clinicians should consider such diagnoses in patients presenting with neuromuscular symptoms following infections and initiate prompt treatment to improve patient outcomes.