CASE REPORT

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Association of Chlamydia pneumoniae and Borrelia burgdorferi Infections with Multiple Sclerosis

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ABSTRACT

Many pathogens, including Chlamydia pneumoniae and Borrelia burgdorferi, have been associated with multiple sclerosis (MS). MS can be significant pathology in some patients who are infected with Chlamydia pneumoniae and Borrelia burgdorferi. In MS, the immune system attacks the myelin sheath that covers nerve fibers, resulting in the interruption of communication between the brain and body. This damage may be permanent.

Keywords: Chlamydia pneumoniae, Borrelia burgdorferi, multiple sclerosis

INTRODUCTION

In multiple sclerosis (MS), the immune system attacks the myelin sheath that covers nerve fibers, resulting in the interruption of communication between the brain and body. This damage may be permanent.

The symptoms of MS vary widely among patients and depend on the location of the damage of the nerve fibers in the central nervous system and severity of the damage. Some individuals with severe MS may lose the ability to walk or move independently, while others may experience long periods of remission without new symptoms, depending on the type of MS they have.

Common symptoms;

Numbness and weakness in one or more parts of the body at the same time, tingling sensation, electric shock sensations with certain neck movements, especially forward bending of the neck (Lhermitte's sign), the lack of coordination, unstable balance or inability to walk, the partial or complete loss of vision, double vision for a long time, blurred vision, vertigo, problems related to sexual, bowel, and bladder function fatigue, weak speech.

CASE PRESENTATION

Our patient is a 30-year-old individual who occasionally experiences severe headaches, muscle weakness, and severe muscle pain. Numbness is felt in both legs and arms. After magnetic resonance imaging examination, the patient was diagnosed with MS. However, more interesting facts are revealed after taking a deeper medical history. A year ago, the patient had pneumonia and despite using certain antibiotics, recovery was delayed (not atypical pneumonia, but bacterial pneumonia was considered).

When taking a thorough medical history, it was revealed that the patient had rash on the soles of their feet for a long time and felt itching for a while. Our research is ongoing. After all, these clinical signs, laboratory tests were requested.

DISCUSSION

We initially requested laboratory tests for Chlamydia pneumoniae and Borrelia burgdorferi, and the results were very interesting [1]. Both Chlamydia pneumoniae and Borrelia burgdorferi immunoglobulin G tested positive [2]. Treatment was started immediately. The treatment included a combination of doxycycline, azithromycin, and metronidazole as advised by an infectious disease specialist.

Two months after starting the treatment, relapses continued. After 7 months, the patient's complaints were significantly reduced, and there were no new symptoms.

The treatment lasted 12 months and in the end there was complete remission, no complaints. Currently, 3 years after treatment, there is no recurrence [3].

Ethics

Informed Consent: Patient consent was obtained.

Peer-review: Externally peer-reviewed.

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