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Case Report Open Access

Disease with a Thousand Faces – A Case Report

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Abstract

We present the case of a patient aged 14 years and 11 months hospitalized in Clinic of Pediatrics II for the following symptoms: fever, muscle and joint pain, intense headache. These symptoms started 2 weeks before admission. Based on history, clinical and laboratory examinations, and by excluding other possible diagnoses, the patient was diagnosed with Lyme disease. Highlighting Borrelia antibodies in the blood confirmed the diagnosis. Antibiotic treatment was instituted with favorable evolution of the patient.

Introduction

Lyme disease is called 'the disease with a thousand faces' because by affecting the entire body its symptoms mimic many diseases. Lyme disease is the most common tick-borne infection in the U.S., the disease to humans through tick bite. Infection is systemic, affecting the entire body and depending on the clinical presentation known three stages: early disease, early disseminated disease, and late disease [1-3].

In early disease patients may present with the typical rash, erythema migrans (EM). Patients may complain of a flulike illness characterized by fever, myalgias, arthralgias, headache, and malaise. Early disseminated disease is characterized by multiple EM lesions. These patients may complain of fever, myalgias, arthralgias, malaise, and headache. Of disseminated disease manifestations note the following: regional or generalized lymphadenopathy, conjunctivitis, carditis, meningism as a sign of aseptic meningitis, and cranioneuropathy, especially peripheral seventh nerve palsy. Late disease is most severe as it causes problems in almost all body systems. Its hallmark is arthritis [1,4,5].

Diagnosis is based on recognition of the characteristic clinical manifestations and serologic confirmation of disease by highlighting Borrelia antibodies [1,5].

Treatment for all stages of Lyme disease involves antibiotics [6].

Case Report

The patient is a girl aged 14 years and 11 months admitted to our clinic on the 5th of September 2010 for fever (39, 6°C), malaise, myalgias, joint pain more pronounced at the hip joints, pain in the lumbar spine, and intense headache.

The disease started two weeks before admission with fever (39, 2°C) and malaise. The patient received symptomatic treatment at home. During this period dysphagia and autonomic manifestations (feeling of choking and shortness of breath) have been associated symptoms. The patient is admitted to hospital in Alba Iulia on pediatric department. Paraclinical assessment showed inflammatory syndrome and lymphocytes monocytosis. The patient was diagnosed with acute tonsillitis. Patient received antibiotics (cephalosporin third generation), anti-pyretic and anti-inflammatory therapy. Evolution was not favorable, fever remained with the presence of two peaks in 24 hours. Headache and arthralgia were associated symptoms. Patient's condition worsened, so that she is guided for specialist consultation in our clinic.

Physical findings are the following: malaise, episodes of dizziness, fever, fatigue, throat and tonsils congested, adenopathy, and rash. According to clinical manifestations and physical findings were taken into account some diagnoses. There are elements that suggest the onset of collagen disease, which is juvenile idiopathic arthritis - systemic form. This diagnosis is supported by prolonged febrile syndrome, arthralgia, and skin rash. Acute tonsillitis, fever (values greater than 39°C), and leukocytosis are features that may indicate sepsis, the starting point being the tonsils. Acute tonsillitis, adenopathies, rash, and lymphocytes monocytosis are characteristic for the diagnosis of infectious mononucleosis. Patient complaining of symptoms that may suggest the onset of lymphoproliferative disorders. This diagnosis can be supported by asthenic syndrome, prolonged febrile syndrome, anemia, arthralgia, and myalgia. Brain damage was considered. Headache and dizziness may occur within the brain lesions. Fever, stiffness of neck and inflammatory syndrome may be complaints of a patient with meningoencephalitis. Another possible diagnosis was infectious disease with cutaneous and neurological manifestations such as Lyme disease or leptospirosis. Headache, fever, myalgia, arthralgia, and fatigue are symptoms that may suggest such an infectious disease.

Laboratory examinations performed in our clinic revealed inflammatory syndrome, lympho-monocytosis, normocytic normochromic anemia. C3 levels are normal. Antinuclear antibody (ANA) and rheumatoid factor test results were negative. Antibodies IgM to Ebstein Bar virus were measurable. For a correct diagnosis following investigations were performed: pharyngeal secretions, urinalysis, urine culture, stool examination, blood culture, echocardiography, abdominal ultrasound. They have not revealed pathological changes. Neurological consultation, bone marrow puncture and brain MRI were normal. Anterior-posterior chest radiograph appearance was acute pneumonia right. Borrelia antibody level was in the process of identifying. Considering both the clinical examination and laboratory patient was diagnosed with:

- Juvenile Idiopathic Arthritis - systemic form,
- Lyme Disease,
- Infectious Mononucleosis,

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- Acute Pneumonia Right,
- Normochromic Normocytic Anemia.

The patient continues to receive antibiotic therapy with third generation Cephalosporin up to 2 weeks. Persistent inflammatory syndrome explains the association of Imipenem. After 2 weeks of antibiotic therapy the patient's general condition improved. Headache, arthralgia, and myalgia resolved. The patient received cortisone treatment which resulted in remission of fever. The patient has been given a cytoprotective agent, calcium supplements, mineral supplements, antipyretic, and analgesic, with favorable evolution.

Lyme disease diagnosis was confirmed by a positive Borrelia antibodies; serology was completed after patient discharge.

At 4 weeks after discharge the patient presented in the clinic for reassessment. It was found that the patient's general condition was good, with no signs and symptoms of disease, and normal laboratory examinations.

Particularities of the Case

In literature there are data supporting that the best clinical marker for the disease is the initial skin lesion, erythema migrans (EM) that occurs in 60% to 80% of patients [1]. In the case described above characteristic skin lesion of Lyme disease is not present. Thus it is difficult to establish contact with the vector (tick).

Infectious nature of the disease with joint manifestations led us to think of onset Still disease. Another particular aspect of the case is prolonged fever for more than a week with encephalitis type events despite treatment. Relating to treatment given, we can highlight two aspects. Patient's response to treatment with third generation cephalosporins and imipenem was favorable. It is known that specific treatment of Lyme disease is antibiotics [6], which is observed in our patient, but cortisone administration had a very good contribution to the disappearance of brain and joint manifestations.

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