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Short Communication

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Lophomonas blattarum infection in an immuncompetent patient and its misdiagnosis: A case report

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Abstract

Lophomonas Blattarum is a round-oval shaped protozoan, 20-60 M diameter with apical tuft of numerous flagellate. It resides as an endocommensal in the hindgut of insects such as cockroaches. It is increasingly being recognized as one of the cause bronchopulmonary infection. A 22-year-old female presented with complaints of cough with blood clots in expectorant, breathlessness on exertion, wheeze and low-grade fever, for past one year. Before arriving to our Outpatient Department (OPD), patient had consulted other medical centers. There she was diagnosed with tuberculosis. In our OPD she was reviewed with previous reports, advised new investigations, continued on Antitubercular Therapy (ATT) and was planned for bronchoscopy. The Bronchoaleveolar Lavage (BAL) was sent for laboratory testing. Wet mount of the sample revealed a motile multiflagellate protozoan resembling ciliated respiratory epithelium. After further assessment, it was reported as Lophomonas blattarum. The patient was kept on ATT, while awaiting Mycobacterium Tuberculosis (MTb) test results. Ongoing ATT had no positive effect patient???s condition. Patient was admitted and started on Anti-protozoan treatment.

It is difficult to differentiate Lophomonas blattarum symptoms from other respiratory infections displaying similar symptoms. Laboratory diagnosis relies on identification of morphological features under light microscopy. Missed identification could be due to delayed sample processing and its close resemblance to bronchial epithelium. With development of serological and molecular methods of identification, diagnosis and treatment can improve.

This study is a retrospective review of L. blattarum cases gathered from July 2014 through December 2016 based on medical records data from Beijing Children's Hospital, Capital Medical University, China. Data included demographic information and clinical information, including age, gender, address, and diagnosis.

The inclusion criteria was as follows: First, the diagnosis of pneumonia meets the guidelines for the management of community-acquired pneumonia in Chinese children (revised in 2013). Second, patients' bacterial and fungal examinations were performed using the Vitek (R) MS system, and the results were negative. The results of tests for routine respiratory viruses (respiratory syncytial virus, parainfluenza virus, 2009 H1N1 influenza virus, H3 subtype influenza virus, seasonal H1 subtype influenza virus, influenza B virus, human enterovirus, human coronavirus, human metapneumovirus, and human bocavirus), mycoplasma, and chlamydia were also negative; and third, all cases were negative for the HIV antibody. Fourth, protein purified derivative (PPD) examination was completed for all instances to exclude tuberculosis infection. All the results were negative. Fifth, L. blattarum was found in alveolar lavage fluid using a bronchoscope and was not observed after metronidazole treatment.

Biography:

Ruchika Butola has completed her MD Microbiology from Swami Vivekanand University, Meerut, India. She is currently working as a Senior Resident in the Department of Clinical Microbiology of Rajiv Gandhi Super Speciality Hospital, India.