Chronic Respiratory Allergy Caused by \textit{Lophomonas blattarum}: A Case Report

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Received : 21 Oct 2017  
Revised: 05 Dec 2017  
Accepted: 26 Dec 2017

ABSTRACT

\textbf{Background and Objective}: \textit{Lophomonas blattarum} is a multi-flagellate protozoan that is commensal in hindgut of cockroaches and other insects. The protozoan can cause respiratory infection in humans. Most cases of the infections with this protozoan have been reported in China. Here, we present a case with chronic respiratory allergy caused by \textit{L. blattarum} in Golestan province, Iran.

\textbf{Case Description}: The case was a 37-year-old male with history of respiratory conditions and he was immunocompetent. An athlete. \textit{L. blattarum} was detected in direct smear examination of sputum.

\textbf{Conclusion}: Since we found respiratory infection in an immunocompetent individual who was also an athlete, it is necessary to study this parasite and its life cycle and transmission methods. It is also suggested to consider \textit{L. blattarum} infection and treatment with metronidazole in cases of chronic allergies, especially those that do not respond to treatment.

\textbf{Keywords}: \textit{Lophomonas blattarum}, Respiratory Allergies, Iran.
sputum examination by light microscopy (Figure 1). The protozoon has an irregular orientation and loses the power of movement after 15-20 minutes. The patient reported that he had seen cockroaches in his home. The case was immunocompetent and played football regularly. White blood cell count was $6.4 \times 10^3$ cells/L with 2% eosinophils. Erythrocyte sedimentation rate was 8 and C-reactive protein was negative. Culture of sputum for diagnosis of Mycobacterium tuberculosis was negative. Moreover, sample culture in sabouraud dextrose agar for detection of fungi was negative. Chest X-ray was normal. Direct sputum smear examination for diagnosis of tuberculosis was negative. The patient was treated with metronidazole 750 mg t.i.d for 15 days.

DISCUSSION

Bronchopulmonary L. blattarum infection has been reported in some countries, especially China. Most cases have been observed in immunosuppressed individuals (7). However, infection with this protozoan has been recently observed in immunocompetent young adults (8). Since we found respiratory infection in an immunocompetent individual who was also an athlete, it is necessary to study this parasite and its life cycle and transmission methods (1, 5). In addition, physicians are advised to consider infection with this parasite, especially in allergic respiratory disorders. Chronic respiratory allergies caused by the parasite can be treated with metronidazole.

CONCLUSION

It is suggested that L. blattarum infection be treated with metronidazole in cases of chronic allergies, especially those that do not respond to treatment.
REFERENCES