

Bronchopulmonary *Lophomonas blattarum* Infection: Still a Pending Issue

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We thank Dr. Martínez-Girón for the interest in our article about bronchopulmonary *Lophomonas blattarum* infection.^[1] However, all the reported cases of bronchopulmonary *L. blattarum* infection are just relied on light microscopic findings. None of the evidences in literatures can be further confirmed by culture, animal models, or multiple molecular procedures. In addition, there is no evidence that *L. blattarum* infection is an endemic disease so far, which makes the infection with geographical limitations hard to explain. Moreover, there is no evidence that *L. blattarum* can be found in the living environment of the patients by cockroach dissection,^[2] although some cases had epidemiological history of cockroach exposure. The hypothesis raised by Dr. Martínez-Girón for the transmission of *L. blattarum* needs further confirmation,^[3] and the first step is finding the sources of the infection. Furthermore, the differentiation between *L. blattarum* and ciliated epithelial cells is very difficult to observe under light microscope practically although there are many differential points described by literatures. We carefully reviewed the literatures about bronchopulmonary *L. blattarum* infection in the past two decades.^[4] All *L. blattarum* images published in literatures are either extremely similar or identical with the ciliated epithelial cells that we found by light microscopy. None of the literatures confirmed *L. blattarum* using electron microscopy nor referred to the typical description of *L. blattarum* in 1969 and 1990.^[5,6] We think ultrastructure under electron microscope is most reliable for the differentiation between *L. blattarum* and ciliated epithelial cells, which is never adopted in the published cases so far. In the absence of effective molecular biologic or culture approaches to identify *L. blattarum* currently, the infection is still a mystery without the confirmation using Koch's hypothesis. Therefore,

bronchopulmonary *L. blattarum* infection is still a pending issue. And, we hope more studies can be carried out to make the debates to an end earlier.

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