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Letter to the Editor

Comment on “Detection of *Lophomonas blattarum* (Order: Hypermastigida from Iranian Patients with Allergic Rhinitis”

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Dear Editor-in-Chief

I read the paper entitled "Detection of *Lophomonas blattarum* (Order: Hypermastigida from Iranian Patients with Allergic Rhinitis" published in the Iran J Parasitol (1).

Regarding this article, there are three unclear issues that should be clarified. First of all, the respected authors of the article surprisingly in the discussion section claimed that there was no molecular test for detecting *Lophomonas* parasite, even though recently, in 2019, a conventional PCR test with specific primers based on small subunit ribosomal RNA (*SSUrRNA*) gene has been developed for detection of the protozoan parasite for the first time by Iranian researchers (1). On the other hand, to date, several publications on this PCR-based test have been published and made accessible, and so far, several Iranian clinical isolates of these

parasites have been sequenced to confirm PCR results and related data have been deposited in the Gene Bank (2-5).

Second, the authors refer to the *L. blattarum* species in all parts of the article, while *Lophomonas* has two species, *blattarum* and *striata*, and without molecular methods, how could they identify these two species. Therefore, instead of referring to the species, they must switch it to *Lophomonas* sp.

Third, the authors did not examine the density of the parasite or severity of infection (mild, moderate, and severe) in each of the examined samples from the patients with *Lophomonas* infection based on the available infection severity index (3).

As a whole, the current data without PCR-based tests are not reliable, and this is the main confounding issue in such studies now.



Although direct microscopic examination in wet mount and/or stained smears is still the most common way to diagnose *Lophomonas* infection, however, microscopic-based methods suffer from low sensitivity and specificity, especially in cases of low parasite density in sputum samples compared to broncoalveolar lavage (BAL) fluid. Therefore, to overcome the microscopic diagnostic pitfalls, it is strongly advised to apply specific PCR test for confirming microscopic examination.

Conflict of Interest

Non-declared.

References

1. Bakhshae M, Teimouri Y, Jabbari Azad F, et al. Detection of *Lophomonas blattarum* (Order: Hypermastigida) from Iranian Patients with Allergic Rhinitis. *Iran J Parasitol.* 2022; 17(4):583-588.
2. Fakhar M, Nakhaei M, Sharifpour A, et al. First molecular diagnosis of lophomoniasis: the end of a controversial story. *Acta Parasitologica.* 2019;64(2):390-3.
3. Fakhar M, Nakhaei M, Sharifpour A, et al. Morphological and molecular identification of emerged *Lophomonas blattarum* infection in Mazandaran Province, northern Iran: first registry-based study. *Acta Parasitologica.* 2021; 66(4):1510-6.
4. Nakhaei M, Fakhar M, Sharifpour A, et al. First co-morbidity of *Lophomonas blattarum* and COVID-19 infections: confirmed using molecular approach. *Acta Parasitologica.* 2022;67(1):535.
5. Taheri A, Fakhar M, Sharifpour A, Nakhaei M, Banimostafavi ES. *Lophomonas* and *Mycobacterium* co-infection: the first molecular evidence to overcome potential diagnostic pitfalls. *Oxford Medical Case Reports.* 2022; 2022(7):omac064.