□ LETTERS TO THE EDITOR □

Lophomonas Misidentification in Bronchoalveolar Lavages

Key words: lophomonas, bronchoalveolar lavage, renal transplantation, pulmonary disease, bronchial ciliated cells, misidentification

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To the Editor We read with interest the recent report by He et al regarding pulmonary infection with the protozoon *Lophomonas blattarum* (LB) in two individuals who had undergone renal transplantation (1).

We believe that the authors may have misidentified bronchial epithelial cells as flagellated protozoa, at least in the examples pictured in their report. In both of the figures that were provided, the morphological features present are more characteristic of bronchial ciliated epithelial cells including the following features: a columnar cellular shape; a clear nucleus at the end of the cytoplasm; fine nuclear chromatin; clearly delineated thin nuclear membrane; cilia that are straight, combed, of uniform length, at the apex of the cell, and inserted into a terminal bar.

We have developed and published criteria that can be used to differentiate protozoa and epithelial cell remnants in both fresh and stained smears (2, 3). With regards to LB, from our experience, this protozoon appears as a more round structure (20-25 µm in diameter) and contains coarse cytoplasmic granules and some vacuoles, with a tuft of wavy flagella which are longer and more varied in length, occurring at one end of the cell, and without a terminal bar.

The nucleus is located at the proximity of the flagellar insertion zone but it is not always visible.

The positive response to metronidazole treatment and the changes on CT images described in the report clearly support the possibility of pulmonary infestation by LB and have also been described elsewhere (4).

Fragments of ciliated epithelial cells or “ciliocytophthoria” are easily mistaken for flagellated protozoa under light microscopy (5). Specific culture media, or specific molecular identification methods are needed to reduce the risk of misidentification.

The authors state that they have no Conflict of Interest (COI).

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