Is it really *Aeromonas hydrophila*?

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To The Editor,

We read with great interest the article by Coutinho et al. [1] who described a case of cutaneous abscess with sepsis caused by *Aeromonas hydrophila*. These authors reported the isolation of *A. hydrophila* from peripheral blood and abscess aspiration of a young man who developed an axillary abscess after bathing in a freshwater lake. In this case, *A. hydrophila* was identified by conventional laboratory (biochemical) methods that are standardly used in most hospital laboratories. However, such biochemical tests are unreliable to accurately identify *Aeromonas* to the species level. For example, Aravena-Román et al. recently investigated 215 *Aeromonas* strains, including *A. hydrophila*, which represented more than 50 % of strains [2]. All of the isolates, which had been previously identified by a conventional biochemical scheme, were subjected to analysis of their nucleotide sequences derived from the *gyrB* and *rpoD* genes. The authors reported that correct identification had occurred in only about one-third of 104 strains that had been identified as *A. hydrophila* based on

phenotypic characteristics. In contrast, two-thirds of the isolates were re-identified as non-*hydrophila Aeromonas*, with most being *A. aquariorum* strains (54 strains, 51.9 %) [2]. The same result was obtained in another case study by Wu et al. [3], who described a cirrhotic patient who developed septicemia caused by *A. aquariorum*, which was initially identified as *A. hydrophila* based on the results of biochemical tests. Therefore, we would like to suggest that genotypic methods should be applied for the accurate identification of *Aeromonas* species to avoid misidentification.

Conflict of interest None.

References

1. Coutinho AS, de Moraes OO, Gomes CM, de Oliveira Carneiro da Motta J. Cutaneous abscess leading to sepsis by *Aeromonas hydrophila*. Infection. 2012. doi: [10.1007/s15010-012-0337-3](https://doi.org/10.1007/s15010-012-0337-3).
2. Aravena-Román M, Harnett GB, Riley TV, Inglis TJ, Chang BJ. *Aeromonas aquariorum* is widely distributed in clinical and environmental specimens and can be misidentified as *Aeromonas hydrophila*. J Clin Microbiol. 2011;49:3006–8.
3. Wu CJ, Tsai PJ, Chen PL, Wu IC, Lin YT, Chen YH, Wang LR, Ko WC. *Aeromonas aquariorum* septicemia and enterocolitis in a cirrhotic patient. Diagn Microbiol Infect Dis. 2012. doi: [10.1016/j.diagmicrobio.2012.08.005](https://doi.org/10.1016/j.diagmicrobio.2012.08.005).

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