

[LETTERS TO THE EDITOR]

Reply to “The Difficulty in Administering Appropriate Antimicrobial Therapy for *Stenotrophomonas maltophilia* Bacteremia”

Key words: Gram staining, matrix-assisted laser desorption ionization-time of flight mass spectrometry, prognosis, rapid identification, *Stenotrophomonas maltophilia*

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The Authors Reply We appreciate the prominent comment on the difficulty in initiating appropriate antimicrobial therapy for *Stenotrophomonas maltophilia* bacteremia by Yanai et al. (1). The authors pointed out that, in the clinical setting, it is usually difficult to distinguish *S. maltophilia* from other non-fermenting bacteria, including *Pseudomonas* species, based on the Gram staining findings. This may delay proper treatment and may lead to a poor prognosis. In our article summarizing the clinical characteristics of Japanese cases of *S. maltophilia* bacteremia, we showed data indicating that the prognosis of patients with appropriate antimicrobial therapy might be poorer than that of the patients without appropriate therapy, though there was no significant difference (2). In this patient cohort, the authors were required to show the timing of antimicrobial therapy for *S. maltophilia* after blood culturing.

We reviewed the medical charts and collected data on the timing of the blood culture examinations and the initiation of antimicrobial therapy. Among the 44 patients, 28 patients were treated with *S. maltophilia*-targeted antimicrobial agents. Twelve of these patients survived and 16 died. The median (interquartile range) number of days from blood culture sampling to antimicrobial therapy in the survivors and non-survivors was 1 (-1, 4) and 2 (-1, 3) days, respectively. Although the period between sampling and the initiation of antimicrobial therapy in non-survivors was longer than that in survivors, a statistical analysis by using the Mann-Whitney test showed no significant difference between the two cohorts ($p=0.559$). It is difficult to draw a conclusion from this small study; however-at the very least-the results indicate that a delay in initiating antimicrobial therapy for *S. maltophilia* was not associated with a worse prognosis

among the patients of the present study. A further clinical study including a large number of patients is warranted.

In general, early treatment with effective antibiotics is essential for achieving a better prognosis in patients with bacterial infections. We therefore believe that the development of a method that facilitates the rapid identification of *S. maltophilia* could improve the prognosis of patients with *S. maltophilia* bacteremia. At present, we agree that Gram staining, a simple method for differentiating organisms, is not useful for the identification of *S. maltophilia* in positive blood culture bottles, as Yanai et al. commented. As an alternative technique, matrix-assisted laser desorption ionization-time of flight mass spectrometry can facilitate the identification of this bacterium, and may contribute to earlier treatment. Although the procedure is conventionally not applied in a direct manner, the accuracy and utility of direct identification using blood culture bottles has been increasingly reported (3, 4).

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

Hiroataka Ebara¹, Hideharu Hagiya¹, Yuto Haruki², Eisei Kondo¹ and Fumio Otsuka¹

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¹Department of General Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Japan and ²Department of Pharmacy, Tsuyama Chuo Hospital, Japan

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Correspondence to Dr. Hideharu Hagiya, e_dai_for_all@hotmail.com

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