Occult Staphylococcus aureus Bacteremia: Other Points to Consider

To the Editor—We read with interest the manuscript by Chia-Ming Fu et al that compared the outcome of patients with occult Staphylococcus aureus bacteremia (SAB; defined as patients with blood culture positive for S. aureus after discharge from the emergency department [ED]) with that of patients admitted to the hospital (2:1 match) [1]. The authors’ hypothesis that “the discharge of patients with occult SAB from the ED would lead to poorer clinical outcomes” was not supported by the analysis based on the 30-day mortality rate, leading them to conclude that there were no differences in the outcomes between the 2 groups. However, this conclusion might be misleading for the following reasons: (i) patients with SAB should have >30 days’ follow-up, as relapses of SAB may occur beyond the 30-day period [2]; (ii) crude mortality might not be a good outcome marker, as attributable mortality associated with SAB is usually a better indicator of outcome (which, we admit, could be difficult to assess in retrospective studies); (iii) even though the matching strategy appears to be sound, the outcome could be affected by the residual confounding by indication. Indeed, the indication leading to the confounding in this case would have been the clinical decision to discharge or to admit the patient at the moment of the ED visit. This bias occurs when a variable is both a risk factor for the outcome and an indication for the treatment. Controlling for this confounding factor is difficult even when propensity scores are used [3]. In conclusion, several limitations of the study presented by Fu et al preclude an interpretation of the authors’ data. Therefore, we believe that patients with suspected or confirmed SAB should still be evaluated and treated in a hospital setting.

Note

Potential conflicts of interest. C. A. A. has received institutional funding from Pfizer. E. C. N. certifies no potential conflicts.

Both authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

Esteban C. Nannini¹ and Cesar A. Arias²,³

¹Division of Infectious Diseases, School of Medicine, Universidad Nacional de Rosario, and Sanatorio Británico, Rosario, Argentina; ²Laboratory of Antimicrobial Research, Division of Infectious Diseases, Department of Internal Medicine, The University of Texas Medical School, Houston; and ³Molecular Genetics and Antimicrobial Resistance Unit, Universidad El Bosque, Bogotá, Colombia

References


Correspondence: Esteban C. Nannini, MD, Division of Infectious Diseases, Universidad Nacional de Rosario/Sanatorio Británico, Paraguay 40, Rosario 2000, Santa Fe, Argentina (enannini@cimero.org.ar).