Correspondence

It’s Not That Simple

To the Editor—We read with great interest the article by Chen et al, and we appreciate their effort to formulate a simple clinical prediction rule for non-Typhii Salmonella (NTS) vascular infections to minimize imaging, with its high costs and possible contrast-related adverse reactions [1]. However, we believe the study has important limitations in data analysis and result interpretation.

The authors acknowledge that 58% of the patients did not undergo imaging to rule out an endovascular source; nonetheless, these individuals were presumed to have no vascular infections for the purposes of developing the prediction model. The mortality rate in patients without imaging was 3 times higher than in patients with a documented lack of an endovascular source (P = .001) and not significantly different from that observed among patients with confirmed vascular infections (P = .13), suggesting that a number of patients who were included in the “no vascular infection” group may have had an endovascular source. In our opinion, the prediction model would be more reliable if only the patients who underwent computed tomography or magnetic resonance imaging (n = 151) were included in the derivation group, which would not be used to test the predictive power of the model.

Additionally, previous studies have shown malignancy and immunosuppressive therapy to be negative predictors of endovascular infection in patients with NTS bacteremia [2, 3]. As mentioned in the article by Chen et al, there is no clear mechanism for this association, but it should be noted that these patients are usually aware of their impaired host defenses. Consequently, they may seek medical care at the onset of fever or constitutional symptoms, early enough for diagnosis and treatment before the development of mycotic aneurysms [3].

In previous reports [2, 3] and the recent study by Chen et al [1], the duration of symptoms was not analyzed as an independent parameter. Therefore, we do not agree that the threshold to search for an endovascular source with imaging should be higher in the immunocompromised host than in the immunocompetent. Moreover, the predictive power of the model would be more reliable if only the patients older than age 50 with NTS bacteremia for endovascular sources, based on their proposed algorithm alone, especially with a negative score for immunosuppression.

Note

Potential conflicts of interest. All authors: No reported conflicts.

All 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.

Kelly S. Chien, Dimitrios Farmakiotis, Maria C. Rodriguez-Barradas, and Daniel M. Musher
Baylor College of Medicine, Infectious Diseases Section, Michael E. DeBakey VA Medical Center, 2002 Holcombe Blvd, Houston, TX 77030 (kschien@bcm.edu).

Clinical Infectious Diseases 2013;56(2):308
© The Author 2012. Published by Oxford University Press on behalf of the Infectious Diseases Society of America. All rights reserved. For Permissions, please e-mail: journals.permissions@oup.com.
DOI: 10.1093/cid/cis834

References