Infectious Diseases Society of America Guidelines for the Diagnosis and Management of Prosthetic Joint Infection: What Is the Correct Duration of Antibiotic Treatment?

To the Editor—The recently published Infectious Diseases Society of America (IDSA) clinical practice guidelines for the diagnosis and management of prosthetic joint infection [1] is a welcome document that is likely to be useful to many clinicians caring for patients with complicated arthroplasty. However, we think that some issues should be clarified. First, for preoperative evaluation, sedimentation rate or C-reactive protein testing is recommended in patients when the diagnosis is not clinically evident. Nevertheless, the optimal cutoffs are not specified, whereas they are mentioned in several series depending on the infected joint [2, 3]. Second, owing to weak bone penetration of antibiotics such as vancomycin and to increasing minimal inhibitory concentrations of methicillin-resistant staphylococci, which are often isolated from infected joint prostheses [4, 5], we wonder if the recommended dosage (15 mg/kg every 12 hours) is sufficient to eradicate such bacteria in biofilm. One last issue that we believe the authors could have addressed more clearly is the duration of antibiotic treatment. Specifically, the guidelines suggest that 4–6 weeks of pathogen-specific antimicrobial therapy following resection arthroplasty is optimal, while stressing that indefinite chronic oral antimicrobial suppression may sometimes be subsequently used. It is also stated that most members of the panel supported the use of chronic oral suppression to prevent relapse of infection following 1-stage exchange. We think that the criteria that lead to the use of a prolonged antibiotic therapy should be clarified. Indeed, as the majority of patients who discontinue their chronic suppression do not suffer from treatment failure, including following debridement and retention, as reported in the guidelines [6], the appropriateness of this protracted oral antimicrobial suppression after 1- or 2-stage exchange is questionable in comparison to the risk of drug toxicity, resistance induction, and additional costs. Thus, assuming that the goal of chronic oral antimicrobial suppression is to inhibit bacterial growth around the implant, the implementation of new microbiological samples in case of treatment failure could be considered and may help to determine appropriate antibiotic therapy. In the same way, the impact of a prolonged 3- to 6-month course of antibiotics following debridement and retention is difficult to establish. Additionally, although randomized clinical trials are lacking to make an optimal choice in all circumstances between 1- or 2-stage exchange, it should be added that there is no evidence to suggest the benefit of a suppressive antimicrobial therapy following planned 1-stage exchange specifically [7]. It should also be noted that according to the guidelines, a 1-stage or direct exchange strategy may be considered only for total hip arthroplasty; however, several series have been published in the last year showing that such a strategy can be used for total knee arthroplasty [8, 9]. Finally, we agree with the fact that the decision to offer chronic suppressive therapy should generally be considered in patients who are unsuitable for or refuse further exchange revision, but we believe it should be reserved for patients with persistent infection and without implant loosening.

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.

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