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Tigecycline
A Viewpoint by Ethan Rubinstein

University of Manitoba Faculty of Medicine, Winnipeg, Manitoba, Canada

Skin and skin structure infections (SSSIs) account for 7–10% of hospitalisations in North America.[1] The increased prevalence of patients with diabetes mellitus, coupled with their considerable longevity, has led to a dramatic increase in the incidence of diabetic foot infections, frequently of polymicrobial nature.[2] In addition, the rapid worldwide spread of community-acquired (CA) methicillin-resistant *Staphylococcus aureus* (MRSA) strains causing SSSIs in children and adults has initiated a shift in the treatment paradigm of such infections.[3]

Tigecycline has, therefore, been introduced at a particularly appropriate moment, since it is active against Gram-positive and -negative bacteria, and some anaerobes, which are frequently isolated in combination from diabetic patients with complicated SSSIs. Evidently, the success of tigecycline in such patients should translate into fewer amputations and surgical procedures, and improved quality of life. This success, in turn, will depend on the efficacy of tigecycline (which is equivalent to that of a potent antibiotic combination[4]), as well as its acceptibility in children and use as an outpatient agent (both of which need to be determined). The success of tigecycline will also depend on correctly assessing the role of *Pseudomonas aeruginosa* and *Bacteroides fragilis* in these infections, as these organisms are relatively nonsusceptible to the drug.

The treatment of CA-MRSA and nosocomial MRSA infections has become increasingly complicated because of multidrug-resistance among some of these organisms and the wish to use vancomycin sparingly. Under these circumstances, tigecycline may emerge as an appropriate alternative, particularly in view of its efficacy against MRSA and vancomycin-intermediate *S. aureus*. Overall, tigecycline seems to address particular clinical treatment difficulties that previously had inadequate therapeutic solutions. ▲

References

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