

Papers Presented at the 2008 Meeting of the Musculoskeletal Infection Society

Editorial Comment

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Surgical site infections after orthopaedic surgery are a source of considerable postoperative morbidity and mortality and are associated with increased rehospitalization and higher healthcare expenditures. Patients with surgical site infections may develop greater physical limitations that lead to reductions in health-related quality of life, particularly if they require reoperation and/or removal of an orthopaedic implant such as a joint prosthesis. While much of the science of infection prevention and treatment has yet to be explored, there has been substantial progress in improving methods for addressing surgical site infections.

The 18th annual meeting of the Musculoskeletal Infection Society of North America was held in August 2008 at Lake Tahoe, California. In this issue, CORR features papers presented at the annual session. Three themes emerge from the series of papers—prevention, diagnosis, and treatment of musculoskeletal infection. Several papers focus on prevention by presenting risk factors associated with the development of surgical site infections, including modifiable risk factors. These modifiable risk factors, such as diabetes, can be improved by patients and physicians prior to orthopaedic surgery to decrease the risk of surgical site infection in the individual patient. The utility of specific preoperative preventive measures such as different types of barrier preparations were also discussed, as were the effect of the attachment of antibiotics to prostheses to

reduce the risk of surgical site infection on the topography of titanium alloy surfaces. The increasing use of ingrowth prostheses that do not allow for antibiotic impregnated cement makes this an important issue for future basic science and translational research.

Regarding the diagnosis of musculoskeletal infection, the utility of MRI to improve preoperative planning in patients with musculoskeletal infections was reviewed. More work in this area relating to the cost effectiveness of the approach is warranted.

The majority of the papers presented at the annual session discussed the treatment of infection, with the focus on implant-related infection. Topics range from the basic science of local antibiotic delivery to the clinical experience of major limb amputations due to uncontrolled infection. Also addressed were important specific topics relating to the reasons for unexpected hospital readmission following discharge after treatment of musculoskeletal infection, and the increasing threat of antimicrobial resistance among organisms causing musculoskeletal infection.

In this era of optimization of patient safety and infection prevention, addressing the problem of surgical site infections begins with careful patient selection and preoperative improvement in modifiable risk factors, proper surgical technique with meticulous environmental control, and heightened awareness for effective surveillance. Once diagnosed, successful treatment of musculoskeletal infection requires a team approach that employs evidence-based practices whenever possible. It is through dialogue—between orthopaedists, infectious disease specialists, and basic scientists—that we advance our understanding of musculoskeletal infection, its prevention, diagnosis, and treatment. We hope you enjoy and learn from the articles in the symposium as we did upon hearing them presented at the annual session in 2008. We invite you to join us for our 2009 annual meeting.

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