Editorial Comment

Symposium: 2013 Hip Society Proceedings

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This symposium is comprised of selected papers delivered at the 2012 Fall (Closed) Meeting of the Hip Society in Rochester, MN, and the Open Scientific Meeting of the Hip Society, in conjunction with the 2013 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS) in Chicago. These meetings focused on current clinical and applied research, and elucidated new information on subjects such as alternative bearing surfaces, outcome of different prosthesis designs, surgical techniques for hip arthroplasty, hip joint preserving procedures, and complications such as infection and thromboembolic disease.

During the last decade, metal-on-metal (MOM) articulations have seen a dramatic decline worldwide due to adverse effects associated with the generation of nanometer-sized metal particulates and ions. New studies suggest that the development of pseudotumors occurs even in well-functioning MOM implants, and that metal ion levels, the presence of a pseudotumor, and the clinical function of the

patient are not exactly concordant. This fact points to the need for ongoing clinical and laboratory surveillance of patients with MOM implants. Additionally, the production of metallic byproducts and adverse local tissue reactions are now being reported in some patients with total hip replacements with large femoral heads articulating with a highly cross-linked polyethylene, and with modular femoral necks. These patients will also need close surveillance.

The success of other bearing surfaces continues to be reported, including ceramic-on-ceramic, ceramic-on-highly crosslinked polyethylene. Although the material properties of these newer bearings are vastly improved, these implants must be implanted with precision to avoid complications such as striped wear, squeaking, impingement, chipping, breakage, and incomplete seating.

Implant designs with modular parts offer more options for the surgeon to reconstruct the hip optimally, taking into account factors such as femoral configuration, length, offset, bone quality, the presence of a periprosthetic fracture. These implants offer surgeons new capabilities for optimizing and restoring normal hip biomechanics. However, modular junctions may fail mechanically or corrode, yielding new problems. Long-term studies are needed to compare the outcomes of newer modular designs with more established nonmodular implants.

Perioperative and late infections are dreaded complications that the reconstructive surgeon is facing with increasing frequency. New methods for expeditious and accurate diagnosis of infection are forthcoming, including laboratory, cellular and molecular tests. Indeed, many of our “single-stage” revisions for diagnoses such as aseptic loosening, polyethylene wear, and recurrent dislocation may in fact be septic cases, if the effort is taken to aggressively culture the operative field and implant for longer periods of time. Current research is examining novel

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methods of prevention of infection via local and systemic means (implant coatings, enhanced patient prophylactic measures) to mitigate this complication.

Recently, both the AAOS and the American College of Chest Physicians have updated their guidelines for prevention of thromboembolic disease after hip arthroplasty. These new guidelines emphasized individualization of prophylaxis based on patient characteristics and complexity of the procedure. Newer physical and pharmacologic agents have entered the marketplace since the previous guidelines, and now have a prominent role.

In some patients, hip preservation procedures may be a better option than hip replacement. Patient selection and surgical experience may be the most important determinants of outcome. Further research in this area is needed, as these younger patients (and their hips) must endure a long life following their surgical procedure.

This symposium underscores the important research that members of the Hip Society and their collaborators undertake, and serves a valuable educational purpose for surgeons interested in disorders of the hip. All studies

Fig. 1 Stuart B. Goodman MD, PhD.

reported in this symposium have undergone rigorous peer review. The members of the Hip Society and I (Fig. 1) are pleased to share their research.