Control the Bleeding, Control the Pain: Improving Outcomes in Total Joint Arthroplasty

FRED C. CUSHNER, MD

Paul Griffin, MD, a career orthopedic educator, once said, “I do not do any operation the same way I did during residency.” Paul was well into the “back nine” of his orthopedic career, but those words still ring true today as we continue to strive for surgical perfection and improved outcomes for our patients.

Certainly, total joint replacement is a procedure that can benefit from change. While the successful results are well described in the literature, there are areas in which improvements can be made. Patients are more active than historical joint replacement patients and demand not only better results but also a quicker and more normal return to activity and function. Surgeons have similar goals but also want to minimize complications and maximize postoperative performance.

Both surgical technique and postoperative patient management are evolutionary processes. What we do after the procedure may be a source for improved patient function and satisfaction. Patients fear the postoperative pain associated with total joint replacement, and new multimodal pain protocols have been successful in decreasing the pain and discomfort associated with it. These new pain protocols focus on a reduction in parenteral narcotic use, which may lead to improved outcomes via fewer postoperative complications such as nausea, altered mental status, and postoperative ileus.

The area of deep venous thrombosis (DVT) prophylaxis could also benefit from change. Clearly, debate exists as to which guidelines—American Academy of Orthopaedic Surgeons or American College of Chest Physicians—are more appropriate, but there is no debate on whether the ideal prophylactic agent still does not exist. Each currently available agent has limitations, and newer agents (now under investigation in the United States but already available in Europe) may address prophylactic concerns as well as concerns about complications associated with DVT prophylaxis of the total joint replacement patient.

This supplement focuses on the challenge of change and discusses not only various protocols and surgical techniques but also how to incorporate change. In the orthopedic setting, there must be a team approach to change. Whether it is a change in DVT prophylaxis or initiating a multimodal pain protocol, not only the surgical staff but also nursing, anesthesia, pain service, and even hospital administration need to be on board and support the change.

This supplement addresses surgical techniques that may lead to improved surgical outcomes. Dr Keith Berend and his co-authors provide an update on unicompartmental joint replacement, and new multimodal pain protocols have been successful in decreasing the pain and discomfort associated with it. These new pain protocols focus on a reduction in parenteral narcotic use, which may lead to improved outcomes via fewer postoperative complications such as nausea, altered mental status, and postoperative ileus.

Various aspects of multimodal pain management are discussed. Dr Terese Horlocker reviews a modern approach to joint arthroplasty anesthesia options and describes some of her published techniques. Dr Jeffrey Swenson reviews the use of catheters to help manage the immediate postoperative patient, whereas Dr Michael Nett reviews some new oral medications that not only may improve pain relief but also may decrease the occurrence of narcotic-associated morbidity.

To address the arena of postoperative prophylaxis, Dr Geno Merli will review some of the newer oral agents for DVT prophylaxis that have been developed and may serve to answer some of the unmet needs we currently have in this area.

The objective of this supplement is to serve not only as a valuable update on methods for improving total joint replacement but also as a reference as readers try to establish similar protocols at their institution.