

# Complex Knee Ligament Surgery

## Editorial Comment

Robert G. Marx MD, MSc, FRCSC

Published online: 10 January 2012  
© The Association of Bone and Joint Surgeons® 2012

Over the past 30 years, knee ligament reconstruction has evolved as much as any other within the field of orthopaedic surgery. While, primary ACL reconstruction is now a common procedure, with approximately 100,000 performed per year in the United States, this symposium is intended to examine knee ligament surgery beyond primary ACL reconstruction. Complex knee ligament surgery is varied and challenging, ranging from new multifaceted techniques for ACL reconstruction to complicated multi-ligament surgery involving reconstruction of all four ligaments (and ligament complexes). Stabilization with external fixation and nerve reconstruction may be required to deal with the sequelae of complex knee ligament injuries. This symposium addresses all of these areas.

While primary ACL reconstruction may be considered routine for an experienced knee ligament surgeon, double-bundle ACL reconstruction has been proposed by some as the preferred method. The method remains controversial, particularly in view of its increased complexity compared with single-bundle surgery. One of the studies presented in this symposium explores the issue of early failure in double-bundle reconstructions compared with single-bundle reconstructions.

Many patients who have failed ACL reconstruction elect to undergo revision surgery. Revision ACL reconstruction can be challenging and requires broader expertise than primary surgery. In some patients undergoing revision



**Fig. 1** Dr. Robert G. Marx is shown.

ACL reconstruction, medial or lateral side reconstructions may be appropriate. PCL injuries are less common than ACL injuries but can be more challenging to treat. They are often associated with medial and/or lateral side injuries, as well as ACL injuries. Several papers in this symposium address the biomechanics, evaluation, treatment, and sequelae of multiligament knee injuries.

In view of the complexity of multiligament reconstruction, meticulous preoperative planning, attention to surgical detail, and careful postoperative management are required to ensure restoration of function, particularly in athletes with high demands. We believe the articles in this symposium will help those of us who care for these patients by furthering our knowledge relating to the pre- and postoperative care, as well as the surgical management.

I would like to thank the authors who worked hard to prepare and revise their manuscripts to meet the high

---

All ICMJE Conflict of Interest Forms for authors and *Clinical Orthopaedics and Related Research* editors and board members are on file with the publication and can be viewed on request.

---

R. G. Marx (✉)  
Sports Medicine and Shoulder Service, Hospital for Special Surgery, 535 East 70th Street, New York, NY 10021, USA  
e-mail: marxr@hss.edu

editorial standards of *Clinical Orthopaedics and Related Research*. It is my hope that these papers will encourage continued and ongoing study of the management of

complex knee ligament problems and that some of these injuries may be eliminated through the use of improved prevention programs in the future (Fig. 1).