Symposium: Management of the Dislocated Knee

Editorial Comment: Symposium: Management of the Dislocated Knee

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We need to know more about patients with knee dislocations than we now do. Knees with multiple ligament injuries ask us many questions, including how to assess for vascular injuries, whether to operate and when, which grafts to use, and how to guide the patient through the sometimes-lengthy and difficult postoperative rehabilitation.

These injuries are limb-threatening. The estimated risk of popliteal artery disruption ranges from 40% to 59% in

some series [6, 10, 18]. A thorough neurovascular assessment is critical to avoid missing an arterial lesion. Several authors recommend performing some form of vascular screening on all suspected or known knee dislocations [7, 9, 17], while others have contended that physical exam alone can be used as a reliable predictor of vascular injury [21].

Another clue to detecting an arterial lesion is the association with a peroneal nerve injury. Therefore, if a patient presents with a foot drop after a knee injury, one should be highly suspicious of a vascular injury. Combined cruciate ligament disruptions with lateral-sided knee injuries are the most common injury pattern to present with peroneal nerve dysfunction. Numerous treatment options for peroneal nerve palsy are available, although success rates vary. This is important because the ultimate functional result after a multiple-ligament-injured knee may depend more on the status of the peroneal nerve dysfunction than the stability of the ligament reconstruction itself [12].

In the last two decades, several large reviews [3, 14] have reported improved patient reported outcomes with operative management of the dislocated knee. With regards to timing of the surgery, several authors [2, 14, 16, 22]

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have shown improved function and knee stability with early versus late surgical repair/reconstruction. Current research, limited mainly to Level III studies, does support early semiacute surgical management of all damaged ligamentous structures [1, 8, 11, 16].

Another controversy in the treatment of knee dislocations is repair versus reconstruction of the collateral ligaments. Although mostly limited to lateral-sided injuries, unacceptably high failure rates have been shown with ligament repairs alone compared to ligament reconstructions [15, 20]. With regard to graft selection, both autograft and allograft tissue

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reconstructions have resulted in satisfactory mid to long-term restoration of knee function [4, 5, 20].

Postoperative rehabilitation after multiligament knee reconstruction is for the most part patient- and knee-specific. While some authors recommend a slow, conservative approach [21] others have recommended early ROM, and even early weight bearing [13, 19]. A randomized clinical trial in Canada is currently underway comparing early versus delayed rehabilitation in this patient population.

This symposium seeks to cover these controversies. Topics include vascular assessment and treatment, peroneal nerve injury treatment and outcomes, the role of stress radiographs to assess ligament instability, novel surgical techniques for PCL and medial sided injuries, the implications of proximal tibio-fibular instability for lateral sided reconstructions, incidence and prevention of complications, and long-term epidemiology and clinical outcomes of the dislocated knee.

I would personally like to thank each author for the contributions made here to the advancement of knowledge in terms of the care of the patient with the dislocated and multiple-ligament-injured knee.

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