Multiple Ligament Injury with Common Peroneal Nerve Palsy after Traumatic Dislocation of the Knee

M Zubair, M Razif Bin M Ali, Ng Wuey Min, Shamsul Iskandar
Orthopaedics Sports Unit, Department of Orthopaedic Surgery, University of Malaya Medical Centre, Kuala Lumpur, Malaysia

ABSTRACT
Introduction: Traumatic dislocation of the knee is uncommon, representing less than 0.2% of all orthopaedic injuries. It is usually caused by high-energy sports injuries or motor-vehicle accidents. It is always associated with considerable ligamentous disruption, but the pattern of injury varies considerably. The most common pattern of injury is a bicruciate disruption with associated disruption of the MCL or posterolateral corner depending on the direction of the deformating force. Complete disruption of all four major ligament stabilizers is less common. The risk of vascular damage in association with dislocation of the knee is well known. Damage to the common peroneal nerve is less well recognized than vascular injury; the incidence is higher in the presence of disruption of the PCL and posterolateral corner. Case Report: A 28 year old junior doctor was involved in a motor-vehicle accident in July 2011. He had left knee dislocation and was treated primarily in a local hospital. He was referred for the significant instability of his left knee which is associated with foot drop. Physical examination showed grade 3 laxity of ACL, PCL and PLC which was confirmed by MRI findings. NCS showed common peroneal nerve axonal neuropathy. Reconstruction of the cruciate ligaments and the posterolateral corner was performed using autogenous grafts. Exploration of the common peroneal nerve showed a neurona-in-continuity. Therefore, neurolysis was carried out for the nerve and tibialis posterior tendon transfer performed to restore the dorsiflexion of the foot. The patient was assessed according to Tegner Activity Level Scale, Lysholm and IKDC scoring system pre and post operatively. Conclusion: Dislocation of the knee usually results in severe soft tissue disruption. The common peroneal nerve is susceptible to injury because of its fixed attachment at the region of neck of fibula. It is usually associated with PCL and posterolateral corner injury during the hyperextension and varus stress of the knee which causes a traction on the nerve. In general, traction injuries to the common peroneal nerve have a poor outcome due to the extensive damage to the nerve. Lesions in continuity can be observed for signs of spontaneous recovery; nerve grafting is reserved for patients with short segment involvement while the transfer of the tendon of tibialis posterior may be a useful alternative to restore dorsiflexion of the foot.

Arthroscopic Reduction and Internal Fixation with Cannulated Screw for Anterior Cruciate Ligament (ACL) Avulsion Fracture from the Tibial Eminentia in Adolescents: A Case Report and Review of the Literature

K Sivadas, H Masdar, C K Sidik, N F Yasin*
Orthopaedic & Traumatology Department, Hospital Selayang, Kuala Lumpur, Malaysia
*Orthopaedic Surgery, Faculty of Medicine UiTM, Hospital Selayang, Kuala Lumpur, Malaysia

ABSTRACT
The literature review revealed that tibial eminence avulsion fracture accounts for approximately 1% of anterior cruciate ligament (ACL) injuries. As the numbers of children and adolescents participating in organised sports are increasing, so too are the number of sports related injuries, especially ACL injuries. However, in the younger population, the incidence of intra-articular ACL injuries is uncommon, so in this age group the strength of the ligament is greater than the bone and the growth plate. Hence in children or adolescents, injuries that stress the ACL most often result in bony avulsion of the ligament from the tibial eminence. Tibial eminence avulsion fracture can lead to knee pain and instability due to the lengthening of the ACL if it is not reduced and fixed well. The methods used for surgical treatment of avulsion fractures of the tibial eminence include open and arthroscopic techniques. The open technique carries more complications due to extensive soft tissue dissection, hence arthroscopic reduction and internal fixation (AIF) of tibial intercondylar eminence fractures is becoming the emerging option. There are various arthroscopic techniques used in the fixation of bony avulsions such as the use of Kirschner wires, staples, metal screws, or nails. We are reporting a case of ACL avulsion fracture from the tibial eminence (Meyers and McKeeve type II) in a 14-year-old boy and describing the arthroscopic screw fixation procedure and outcome of such case.