

# From the Editors

## Multi Ligament Knee Instability: How to swim in choppy waters?

Sachin Tapasvi<sup>1</sup>, Anshu Shekhar<sup>1</sup>

The spectrum of multi ligament knee injury (MLKI) encompasses injury to every tissue in and around the knee joint ligaments, menisci, cartilage, bone, nerves and vessels. The management of such an injury involves marshalling every possible resource and skill at the knee surgeon's disposal. In fact, it is often in the emergency room (ER) and not the operating room (OR) that the most critical decisions need to be taken when dealing with a patient with MLKI. The absence of 'best practice guidelines' or 'standard of care' means that every institution must have its own standard operating protocols (SOPs) for managing these complex injuries. Muddling the water further, is the absence of high quality evidence, thus making the formulation of such SOPs a difficult task. Hence, decision making is largely guided by Level IV evidence, expert opinions and personal experience. The current issue of Asian Journal of Arthroscopy aims to collate the available literature and opinions of some stalwarts of knee surgery from all parts of the globe, in ten narrative reviews.

The terminology of MLKI is often used interchangeably with knee dislocation (KD). This is not always true because a KD typically involves injury to both cruciates, whereas an MLKI can have a single cruciate and collateral ligament injury. Knee dislocations were once considered rare injuries but this is changing because of increasing incidence of high velocity trauma, the occurrence of ultra-low velocity KDs in morbidly obese patients and the recognition that almost half of KDs present with a reduced knee [1-3]. The initial assessment in the ER is crucial so as to not miss injuries to the nerves and vessels and has been discussed in great detail by the team from University of New Mexico led by Robert Schenck. The Schenck Classification [4] is perhaps the best system to categorize these injuries to formulate a treatment plan. The management of specific injuries of the medial collateral ligament and posterolateral corner has been helmed by Andy Williams and Dave Lee respectively. Both these authors have discussed every aspect of diagnosis and treatment and the reader can learn a lot from their vast experience. Posterior cruciate ligament injury in MLKI has been reviewed by Brett Fritsch with exhaustive details about restoring the central pivot of the knee in this complex scenario. The occurrence

<sup>1</sup> Orthopaedic Speciality Clinic, Pune Mahatrahtra.

### Address of Correspondence

Dr. Anshu Shekhar,  
The Orthopaedic Speciality Clinic, Pune  
E-mail: dr.anshushshekhar@gmail.com.



Dr. Sachin Tapasvi



Dr. Anshu Shekhar

© 2020 | Asian Journal of Arthroscopy | Available on [www.asianarthroscopy.com](http://www.asianarthroscopy.com) | doi:10.13107/aja.2020.v05i01.001

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

of fractures and neurovascular injuries in a knee dislocation pushes the surgeon to an unfamiliar territory and thus requires a team effort involving trauma and vascular surgeons. A comprehensive review of these problems and management guidelines has been elegantly presented by Sundararajan S.R. based on his wide experience at Ganga Hospital.

Some more contentious issues in MLKI like the role of ligament repair has been discussed and guidelines are provided. A peculiar problem faced by surgeons in Asia, Africa and Latin Americas is treating knee dislocations with limited resources. Michael Held from South Africa has coined the terminology 'limited resource setting' (LRS) and has steered an excellent paper on this topic, which is of immense value to surgeons from such regions. The role of correcting osseous mal-alignment in all three dimensions in a multi-ligament injured knee is well established now [5]. A comprehensive review on such osteotomies aims to provide the readers with the latest concepts and trends. It is imperative that any surgery for this complex injury pattern would be fraught with risks and complications. Dinshaw Pardiwala has written an excellent and detailed review for salvaging such difficult situations. A current review on the functional outcomes of these complex and serious injuries has been presented by Nagraj Shetty.

The aim of this issue is to provide the reader with information and knowledge which can then be used to guide patient management. We hope that the wealth of knowledge shared by our authors will enrich the readers and guide them in creating their own SOPs for swimming in the choppy waters of MLKI.

Sachin Tapasvi  
Anshu Shekhar

## References

1. Arom GA, Yeranorian MG, Petriglioano FA, Terrell RD, McAllister DR. The changing demographics of knee dislocation: a retrospective database review. *Clin Orthop Relat Res.* 2014;472:2609-14. *Surg.* 2013 May;57(5):1196-203.
2. Georgiadis AG, Mohammad FH, Mizerik KT, Nypaver TJ, Shepard AD. Changing presentation of knee dislocation and vascular injury from high-energy trauma to low-energy falls in the morbidly obese. *J Vasc Surg.* 2013 May;57(5):1196-203.
3. Wascher DC, Dvirnak PC, DeCoster TA. Knee dislocation: initial assessment and implications for treatment. *J Orthop Trauma.* 1997;11:525-9.
4. Walker DN, Schenck RC. A baker's dozen of knee dislocations. *Am J Knee Surg* 1994;117-24.
5. Tischer T, Paul J, Pape D, et al. The Impact of Osseous Malalignment and Realignment Procedures in Knee Ligament Surgery: A Systematic Review of the Clinical Evidence. *Orthop J Sports Med.* 2017;5(3):2325967117697287.

Conflict of Interest: NIL  
Source of Support: NIL

### How to Cite this Article

Tapasvi S, Shekhar A | Multi Ligament Knee Instability: How to swim in choppy waters? | Asian Journal of Arthroscopy | January-April 2020; 5(1):1-2.