

## OUTCOMES OF MULTILIGAMENT RECONSTRUCTION IN HOSPITAL MUAR USING ORIGINAL LARSON TECHNIQUE

Muhammad Syukri Ab Hamid<sup>1</sup>, Nurhanani Abu Bakar<sup>1</sup>, Nur Akmal Ismail Mansor<sup>1</sup>, Mohamad Razip Sirat<sup>1</sup>

<sup>1</sup>Hospital Pakar Sultanah Fatimah

**Introduction:** Multi-ligament knee injury is the state of having two or more of the major knee ligaments, namely: the anterior cruciate ligament (ACL), the posterior cruciate ligament (PCL), the medial collateral ligament (MCL), the lateral collateral ligament (LCL), the posteromedial corner (PMC), and the posterolateral corner (PLC). The knee is a hinge joint; this dictates two direction movements on the y-axis plane. The knee joints carry the weight load of the body uniquely. The role of the knee ligaments is not conserved only to maintain knee in a rigid position while standing, but also orchestrates the biomechanics of knee motion in harmony. Multi-ligament knee injury is very rare (incidence < 10:10,000 of trauma cases). Patients with multiple ligaments injuries of the knee become disabled for a long period. This disability rises from the pain and stiffness of the knee joint. Patients with multiligament injury from Muar district are often work related and road traffic accident injury and most of them preferred to undergo reconstruction surgery instead of treated non operatively.

**Methodology:** A cross-sectional study conducted from January 2018 to January 2020. All patients with multi-ligament knee injuries that were diagnosed by MRI, and underwent reconstruction surgeries using Larson's technique, at Hospital Pakar Sultanah Fatimah, Muar for the past 2 years were included. Lysholm knee scoring scale was used to assess the functional outcome of each patient.

**Discussion:** 14 patients were enrolled in this study. 5 had excellent outcome (LKSS = 95 - 100), 6 of them had good score (LKSS = 84-94), 3 had fair outcome (LKSS = 65-83).

**Conclusion:** Reconstruction of multi-ligament knee injury shows a good outcome than it was left alone. The original Larson's technique shows good outcome for non athlete patients in Hospital Pakar Sultanah Fatimah, Muar. Post-operative physiotherapy increases the potential of reconstruction.