

NON-OPERATIVE TREATMENT OF POSTERIOR CRUCIATE LIGAMENT INJURY WITH DYNAMIC PCL KNEE BRACE – A CASE SERIES

Wong Chen Choong¹, Nurulhasyim Saparai², Zairul Anuar³

^{1,3}Department of Orthopaedic Surgery, Hospital Pulau Pinang, Malaysia.

²Sports Medicine unit, Department of Orthopaedic Surgery, Hospital Seberang Jaya, Malaysia

Introduction:

Injuries to the posterior cruciate ligament (PCL) are less common than those to the anterior cruciate ligament (ACL). Outcome studies of PCL knee bracing and multi-ligamentous knee injury are rare. We now present the study of the effectiveness of conservative treatment of PCL injury, isolated PCL injury and multi-ligamentous injuries (with PCL injury) with the use of dynamic PCL knee brace.

Method:

Knee injury and Osteoarthritis Outcome Score (KOOS) has five subscales: Symptoms, Pain, Functional daily activity (A), Function in Sport and Recreation (SP), and knee-related Quality of Life (Q). It is used to subjectively assess the changes pre brace (as baseline score) followed by 1st and 3rd month post brace. The higher KOOS scoring signifies better outcome. Six patients who were not keen for surgical intervention were subjected to wear dynamic PCL brace for 3 months. Four of them have multi-ligamentous knee injury (Group A) while another two patients have isolated PCL injuries (Group B).

Results:

Overall, group B has higher total KOOS scoring than group A. Post brace 3rd month, both groups have improvement in terms of symptoms, pain and functional daily activity but group B has a better result than group A. However, this conservative management does not bring much positive impact for both groups in terms of SP and Q.

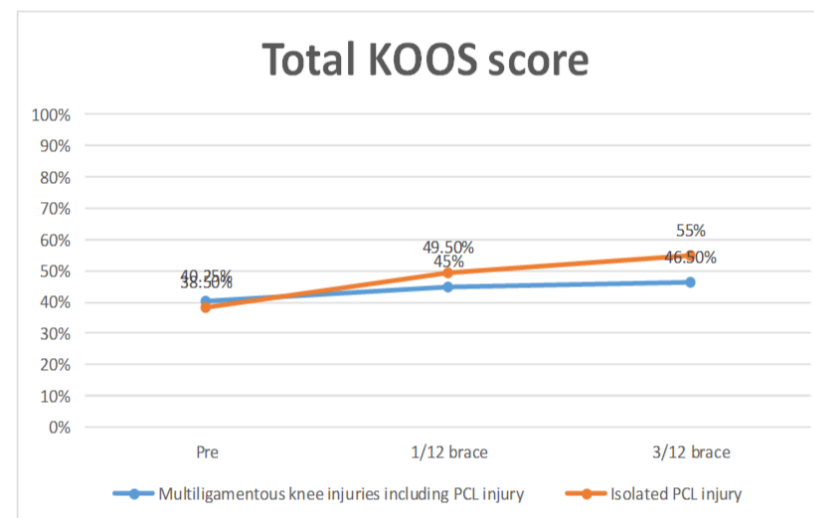


Figure: Group A (blue); Group B (orange)

Discussion:

This study has proven that dynamic PCL knee brace can improve patients with multi-ligamentous knee injury (with PCL injury) and isolated PCL injury symptomatically. It can be used for those patients with multi-ligamentous knee injury who are not keen for surgery, however, surgical intervention is one of the treatment options based on individual's activity demand.

Conclusion:

Surgical intervention is a treatment option for those who suffer from multi-ligamentous knee injury (with PCL injury) based on individual's demand.

References:

Roos EM, Lohmander LS. The KOOS: PMID: PMC280702.