Anatomical Medial Patellofemoral Ligament Reconstruction In Management Of Cases Of Patellar Instability

Thesis Submitted for Partial Fulfillment of M.D. Degree In Orthopaedic Surgery

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Abstract

From February 2013 to February 2016 , 30 knees with patellar instability met the inclusion criteria and underwent MPFL reconstruction ; 15 cases by suture anchors technique (50%) , and 15 cases by patellar bone tunnels technique (50%) . The mean duration of follow-up in our series was 8.93± 5.32 months (6–29). There were 12 Males (40%) and 18 Females (60%) with a mean age of 25.97±6.79 years (15–42) .

In conclusion, this study shows that anatomic MPFL reconstruction is a reliable treatment option with little associated morbidity for the treatment for patellar instability , especially in patients without bony abnormalities. The procedure described here offers the opportunity of an anatomical MPFL reconstruction. Reproducing the anatomy of the native MPFL enables the reconstructed ligament to have an isometric function and therefore being effective through a greater range of motion, enabling an early functional rehabilitation and avoiding an increase of patellofemoral pressure in higher degrees of knee flexion. The two methods used to fix the reconstructed MPFL to the patella resulted in a similar postoperative outcome.

Key Words : Anatomical reconstruction , patellar instability, Medial patellofemoral ligament , Anchors.

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LIST OF ABBREVIATIONS

A-P	Antero-posterior
ALT	Alanine Transaminase
AST	Alanine Aminotranferase
BT	Bone tunnels
CBC	Complete blood count
CT	Computed tomograghy
ED	Emergency department
F	Female
IKDC	International Knee Documentation Committee
INR	International normalized ratio
ITB	Iliotibial band
Kg	Kilogram
KOOS	Knee injury and osteoarthritis outcome score
Lt	Left
M	Male
MCL	Medial collateral ligament
MIS	Modified Insall-Salvati
mm	Millimeter
MPFL	Medial patellofemoral ligament
MPML	Patellomeniscal ligament
MPTL	Patellotibial ligament
MRI	Magnetic resonance imaging
N	Newton
NSAIDs	Nonsteroidal anti-inflammatory drugs
OPI	Objective patellar instability
PC	Prothrombin concentration
PF	Patellofemoral
PFJ	Patellofemoral joint
PFJR	Patellofemoral joint reaction force
PFPS	Patellofemoral pain syndrome
PPI	Potential patellar instability
PPS	Painful patella syndrome

PT	Prothrombin time
Q angle	Quadriceps angle
ROM	Range of motion
Rt	Right
SA	Suture anchors
SD	Standard deviation
SLR	Straight leg raising
SPSS	Statistical Package for the Social Science
TT-TG	Tibial tuberosity – trochlear groove
VMO	Vastus medialis obliquus
WB	Weight bearing

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