

## Anatomic Anterolateral Ligament Combined with Single-Bundle Anterior Cruciate Ligament Reconstruction Using the Same Hamstring Graft: Technique Report

Xuan Huang, MD, PhD, CHINA

Department of orthopaedics, Changhai hospital  
Shanghai, Shanghai, CHINA

### Summary:

Combined anatomic ALL and ACL reconstruction using the same hamstring graft allow the knee to be stabilised in the sagittal plane and the rotatory instability to be controlled in the majority of cases without specific complications.

### Abstract:

Background: Combinations of intra- and extra-articular procedures have been proposed for anterior cruciate ligament (ACL) reconstruction with the aim of achieving an optimal control of translational and rotational knee laxities. Recently, the anterolateral ligament (ALL) has been identified as an important structure involved in rotational laxity after ACL injury. This study aimed to report a novel technique of anatomic ACL and ALL reconstruction with the same hamstring graft.

Methods: Sixteen pts, with an isolated ACL injury and grade 3 pivot shift test, underwent the combined procedure. Two different graft settings were selected, 4 strands graft inside the joint and 2 strands for ALL or 2 strands for the whole graft. The outside-in ACL femoral guide was introduced to allow the ALL graft insert at the level of isometric point on the lateral femoral condyle. The distal insertion of the ALL was taken to be roughly halfway between the Gerdy tubercle and the middle of the fibular head. The graft was secured with 3 outside-in bioabsorbable interference screws respectively.

Results: All pts were re-examined at an average follow-up of  $76 \pm 12$  months. The average differential anterior drawer test at the last review was  $2.5 \pm 3.4$  mm and 75% pts had a negative pivot shift test at final follow-up.

Conclusion: This study demonstrates that a combined anatomic ALL and ACL reconstruction using the same hamstring graft allow the knee to be stabilised in the sagittal plane and the rotatory instability to be controlled in the majority of cases without specific complications.