

## Promising Short-Term Results Following Selective Bundle Reconstruction In Partial Anterior Cruciate Ligament Tears

**Ferran E. Abat, MD, SPAIN**

Pablo E. Gelber, MD, PhD, SPAIN

Juan Ignacio Erquicia, MD, SPAIN

Marc Tey, MD, SPAIN

Xavier Pelfort, MD, SPAIN

Raúl Torres-Claramunt, MD, SPAIN

Joan Carles Monllau, MD, PhD, SPAIN

ICATME-Institut Universitari Dexeus  
Barcelona, Barcelona, SPAIN

### Summary:

Selective reconstruction of only the injured ACL bundle showed excellent functional results with normalized stability and with a return to the previous level of activity at a minimum 2 years' follow-up and the arthroscopic examination was the most reliable tool for properly diagnosing a condition observed in almost 1 out of every 5 ACL reconstructed knee in this series.

### Abstract:

#### Purpose:

To assess the outcome of patients undergoing selective reconstruction of an injured bundle of isolated anteromedial bundle (AMB) or posterolateral bundle (PLB) tears at minimum 2 year's follow-up.

#### Methods:

A consecutive series of 147 ACL reconstructions was prospectively analyzed. Patients with partial ACL tears who underwent selective bundle reconstructions were studied. Stability was assessed with Lachman, anterior-drawer and Pivot-shift tests and KT-1000 evaluation. Functional assessment was performed with Lysholm and Tegner questionnaires. The preoperative MRI was analyzed to detect differences with the arthroscopic findings.

Complications were recorded.

Results: Twenty-eight patients (19%) were included with a minimum follow-up of 25 months. Eighteen had AMB and 10 PBL tears. Only 19% of the MRI was categorized as partial ACL tears.

The Lysholm score improved from 66.1 and 65.5 to 96.6 and 95.2 in the AMB and PLB groups respectively ( $p < 0.001$ ).

The same or only one level lower of the Tegner score was restored. Pivot-shift, Lachman and anterior drawer tests were negative at final follow-up in all cases ( $p < 0.001$ ). Five reconstructed AMB developed extension loss including 2 due to Cyclops lesions. They all were resolved surgically.

#### Conclusions:

Selective reconstruction of only the injured ACL bundle showed excellent functional results with normalized stability and with a return to the previous level of activity at a minimum 2 years' follow-up. The arthroscopic examination was the most reliable tool for properly diagnosing a condition observed in almost 1 out of every 5 ACL reconstructed knee in this series.