

## Evaluation of Femoral double tunnel Posterior cruciate ligament Reconstruction using Tibial inlay technique

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### Introduction

To evaluate knee function, stability, and activity score after femoral double tunnel PCL reconstruction using tibial inlay technique which mimics the natural behavior of normal PCL by reproducing both 2 major components of PCL ( the anterolateral and posteromedial bundles ).

### Material and Methods

From April 2002 to March 2003, 24 Patients were treated by femoral double tunnel PCL reconstruction using tibial inlay technique with achilles allograft and followed more than 15 months(average 35months). Mean age of study group was 37.2 years(range 16~60years). Clinical results were evaluated with Lysholm score and Tegner score. Radiologic analysis including posterior stress and Telos stress view was done.

### Result

1. Average preoperative Lysholm score, Tegner activity score and posterior translation of push view were 43, 2, 14.6 mm and those of postoperation were 85, 4.5, 2.9 mm.
2. In push view using Telos device ( 15 lb ), Injured side of knee was more posteriorly translated by 2.5, 3 mm at 30° and 90° flexion than normal side.
3. Postoperative Lysholm score and Tegner activity score of a group without combined ligament injury (18 cases) were 96.6 and 6. A group with combined ligament injury (6 cases) were 81 and 4.
4. Complication were Quadriceps atrophy (19 cases, average 2.8 cm), limitation of flexion over 100° (3 cases) and Extension lag (1 case).

### Conclusion

Femoral double tunnel PCL reconstruction using tibial inlay seem to be a reasonable alternative for primary PCL reconstruction because we obtained satisfactory clinical outcomes. Nevertheless, large series of patients with long-term follow-up and comparison with single bundle reconstruction are required to fully access the effectiveness of this procedure.

**Key word:** Posterior cruciate ligament reconstruction, Femoral double tunnel, Tibial inlay technique.