

Arthroscopic PCL reconstruction

M. Kurosaka, MD
Kobe University



PCL reconstruction

- Prognosis of isolated PCL injury is not necessarily poor.
- PCL reconstruction is often indicated in the knees that have combined ligament injuries.
- Attention should be paid to combined PLC injury.



Surgery is often indicated for the knee with this kind of instability



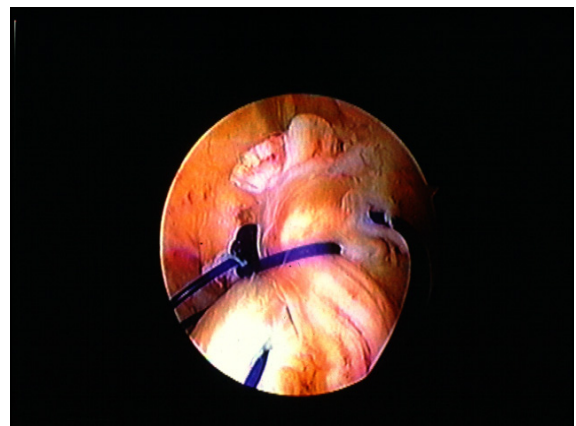
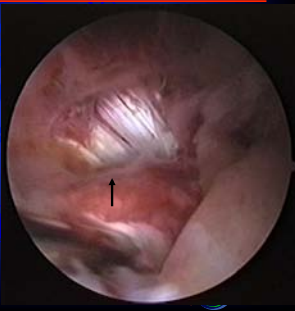
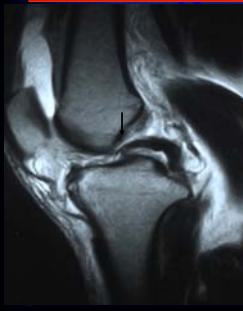
Multiple ligament injury

- Torn PCL is sometimes peeled off from the insertion thus repairable.



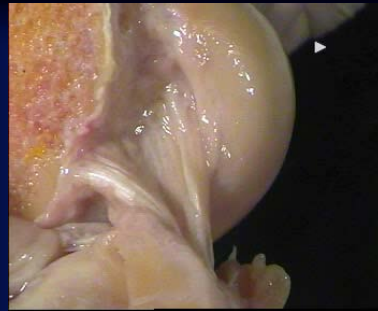
“Peel-off” type tear of the PCL

(32 y. o. male, PCL/lateral corner Injuries)

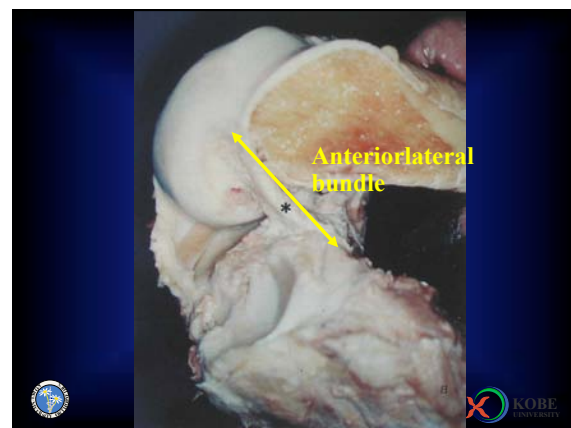


Surgical technique of PCL recon.

- Open
- Arthroscopic assisted two incision
- Arthroscopic one incision transtibial drill hole
- Inlay technique



Courtesy of A. Amis



Supine position, a thigh high tourniquet and operated leg elevated



Arthroscopic PCL reconstruction

- Fluoroscopic control is recommended.
- 30 and 70-degree arthroscope should be available.
- Creation of posteromedial portal is mandatory.



Grafts can be double STG or Quad tendon



Debridement of the remnant PCL



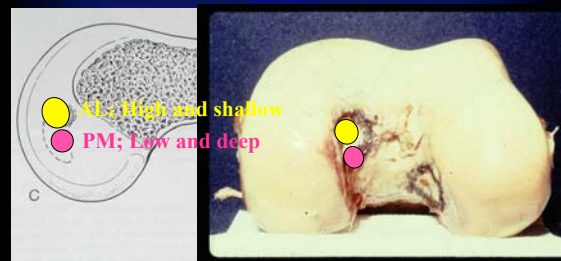
PCL femoral side insertion



Identification of the femoral insertion and posteromedial corner



Far anteriorlateral portal to aim the femoral insertion



AL: High and shallow
PM: Low and deep

Drilling of the femoral tunnels

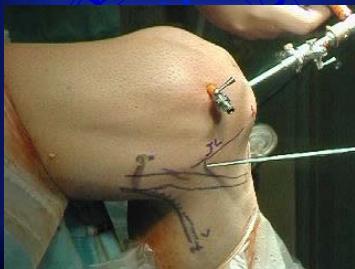


11 O'clock shallow and 9 O'clock deep tunnel
Care must be taken to avoid lateral cartilage.

Femoral tunnel placement for PCL recon.



Posteromedial approach



Anterior and posteromedial observation



Creation of the posteromedial portal



Identification and debridement of the tibial insertion



Identification and debridement of the tibial insertion



Creation of the tibial tunnels

- The use of PCL elevator-catcher



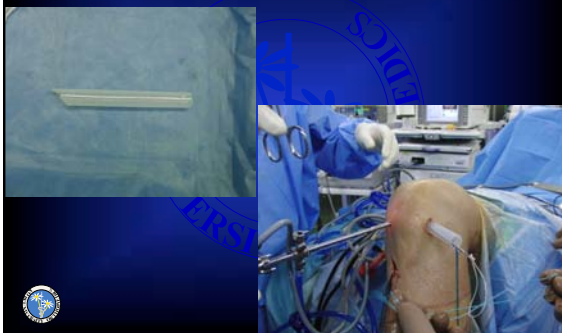
Safety tip to create tibial drill hole

- Good visualization with posteromedial approach
- Debridement of the remnant PCL with a thermal instrument
- The use of PCL elevator-catcher
- The use of safety stop to control the depth of a pin and drill

Enlargement of the Anterior Lateral Portal



Use of the plastic tube for easy graft insertion



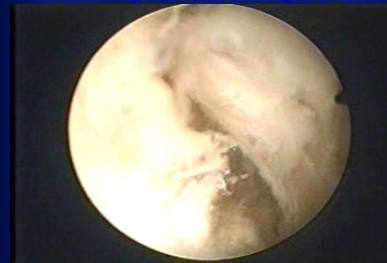
Graft passage



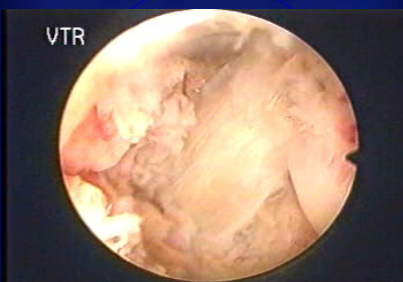
Arthroscopic view after implantation



After implantation



Posterior medial view



Kobe University Hospital

Thank you

