Management of Episodic patella dislocation

Grenoble 2011

Philippe Neyret
Elvire Servien

University of Lyon
Interrogatoire

- Craquement
- $H^+$
Posez la tête, dérangez-vous...
EXAMEN

- H+

Ponction
TROCHLEAR DYSPLASIA

- Crossing sign
- Trochlear bump

H. Dejour, G Walch, Ph Neyret
Trochlea dysplasia, Rev Chir Orthop 1990, 76 : 45-54
• Trochlear dysplasia

>145°
Crossing sign

EPD 96%
Control group 3%

[type I, type II, type III]
Trochlear bump

EPD
3.2mm
+-2.4

Control group
-0.8mm
+-2.9

>3mm
3
Principal Factors

- Patellar height
- TT-TG
- Patellar tilt

Threshold
Secondary Factors

- F. Antetorsion
- G. Recurvatum
- G. Valgum
- Female

No Threshold
1. Patella alta $>1.2$

Caton & Deschamps Index

AT/AT

H. Dejour
2. TT-TG

- TT-TG > 20mm
- 19.6
- 21.7
- 31mm
- 10mm
3. Patellar Tilt

>20°

Quadriceps Dysplasia

Trochlear Dysplasia

15°
Surgical

- True dislocation
- Young patient
- Preop. planning
- 1 factor $\leftrightarrow$ 1 procedure
RESULTS

- N = 130 (174 knees) 1988-1999
- FU: 2y-13y N=110

Subjective IKDC: 77.2 (45.9-95.4)

Very Satisf. or Satif.: 94%

Post-op dislocation: 4.5%

E. Servien, T Ait Si Selmi, Ph Neyret: Subjective evaluation of surgical treatment for patellar instability
Rev Chir Orthop, 2004, 90, 137-142
Discussion

TROCHLEA DYSPLASIA

MPFL

Distal transfer
Discussion

The trochlea

3D CT-Scan

X-Ray

CT-Scan
• Normal Trochlea
- Trochlear dysplasia

X-Rays

>145°

crossing
Don Fithian
MPFL
Reconstruction

Several previous dislocations

No previous dislocation
In Vivo Positioning Analysis of Medial Patellofemoral Ligament Reconstruction

Elvire Servien,*† MD, PhD, Brett Fritsch,‡ MD, Sébastien Lustig,† MD, Guillaume Demey,† MD, Romain Debarge,† MD, Carole Lapra,§ MD, and Philippe Neyret,† MD
Investigation performed at Department of Orthopaedic Surgery, Centre Albert Trillat, Groupement hospitalier nord-Lyon Université, Lyon, France

Background: Several techniques have been described for reconstruction of the medial patellofemoral ligament (MPFL). The anatomical insertion of the MPFL has been defined; however, there are no reports describing the accuracy of femoral graft positioning assessed postoperatively.

Purpose: The purpose of the study was to analyze the femoral graft positioning in MPFL reconstruction.

Study Design: Case series; Level of evidence, 4.

Methods: The authors reported a prospective series of 29 MPFL reconstructions with a minimum follow-up of 24 months. The tunnel positioning analysis was performed using plain radiographs and magnetic resonance imaging at 1-year follow-up.

Results: Twenty-nine femoral tunnels were analyzed; 20 femoral tunnels (69%) were considered to be in good position on plain radiographs. On magnetic resonance imaging, the authors found 19 femoral tunnels (65%) in a proper location, 5 (17.5%) in a high position, and 5 in an anterior and/or high position.

Conclusion: The study highlights the difficulty of reproducible MPFL reconstruction. The surgical procedure continues to be improved and finding a reliable technique to anatomically place the graft remains challenging. Verifying femoral tunnel placement radiographically may be recommended during surgery.

Keywords: medial patellofemoral ligament reconstruction (MPFL); graft positioning; femoral tunnel positioning; anatomy; patella
• TTd is the same in the control and EPD groups
• Mean patellar tendon length is longer in the EPD group than in the control group

Ph. Neyret, A.H.N. Robinson, …, P. Chambat
Patellar tendon length – the factor in patellar instability? The Knee 2002
Patella alta

Ph. Neyret, A.H.N. Robinson, ..., P. Chambat
Patellar tendon length – the factor in patellar instability?
The Knee 2002
Patellar Tendon Tenodesis in Association With Tibial Tubercle Distalization for the Treatment of Episodic Patellar Dislocation With Patella Alta

Cyril Mayer,*† MD, Robert A. Magnussen,‡§ MD, Elvire Servien,* MD, PhD, Guillaume Demey,* MD, Matthias Jacobi,¶ MD, Philippe Neyret,* MD, and Sebastien Lustig,* MD, PhD

Investigation performed at Hôpital de la Croix-Rousse, Centre Albert Trillat, Lyon, France
Merci

Philippe Neyret
Elvire Servien

University of Lyon