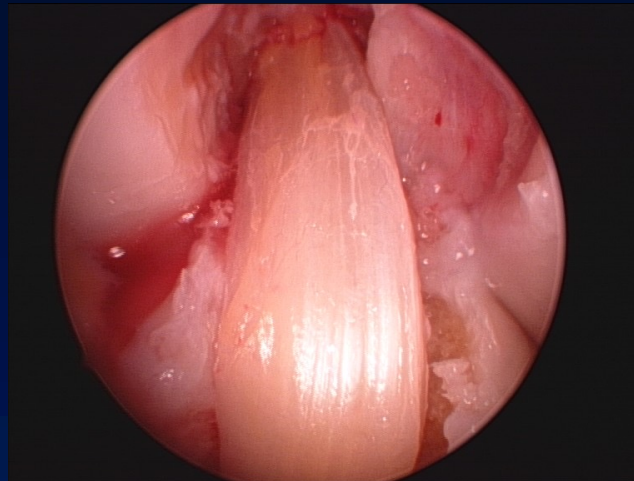


Femoral tunnel



Does the approach really of importance?



*François Kelberine, Loic Lecoq
Victor Pacoret, Alain Vanderleyen*

Aix en Provence & Gap- France

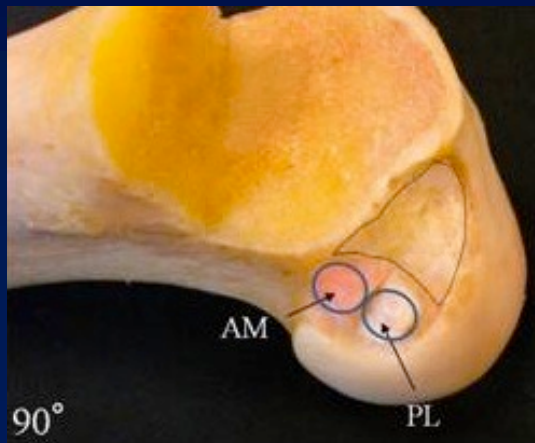
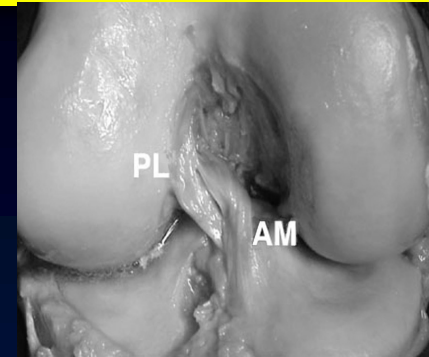
Base is Anatomy



✓ To go from A to B

✓ ACL femoral insertion spot

Post and Medial



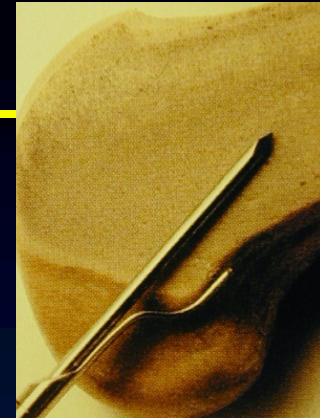
Femoral tunnel is important



✓ Direction, diameter, length



THE controversy



✓How to reach the good spot

✓With a drill guide

✓Guided reamed tunnel

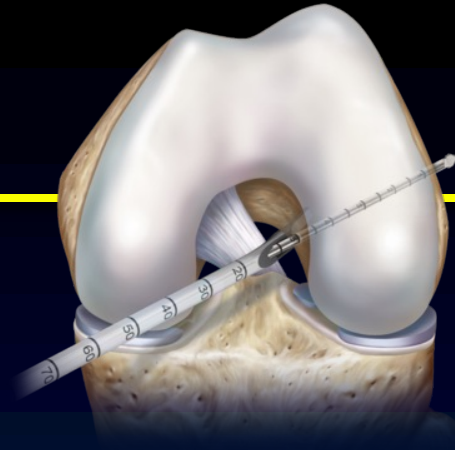


Single bundle samples





✓ Anteromedial portal



✓ Transtibial



✓ Out in technique



✓ Reliable and reproducible

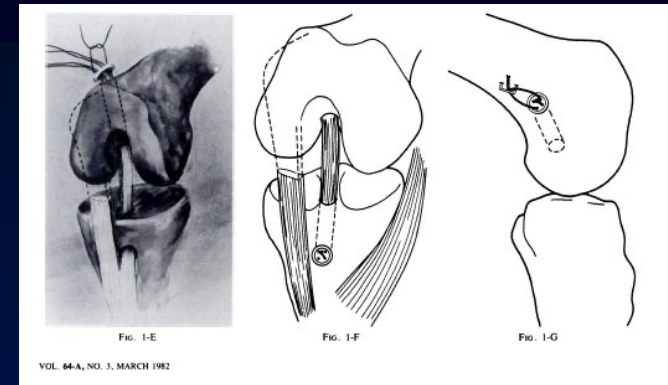


Literature

107 hits the last 10 years



- ✓ Advantages AM portal \geq Out/In $>$ Transtibial
 - ✓ Significant !!
 - ✓ 1,2 to 2,3 mm!!
 - ✓ Clock position



- ✓ Is it valid?
- ✓ Comparison with malpositioned femoral spot
- ✓ So we move "anatomical SB reconstruction"
- ✓ Thanks to DB studies to show that we have to be oblique (for those who did notice it before...)

Anteromedial portal



✓ Technique

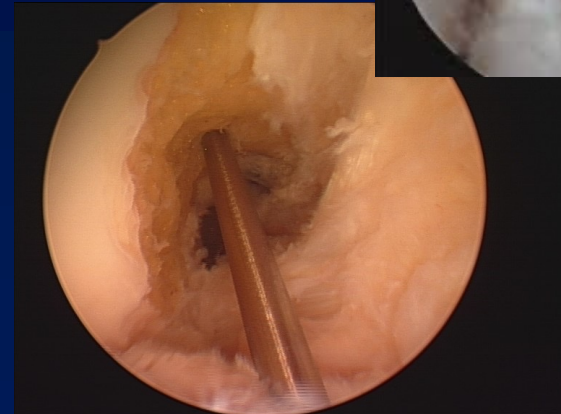
- ✓ Need 120° flexion
- ✓ Lower medial portal

- ✓ Shoot & slide
- ✓ Pilot hole
- ✓ Offset Guide



✓ Risks

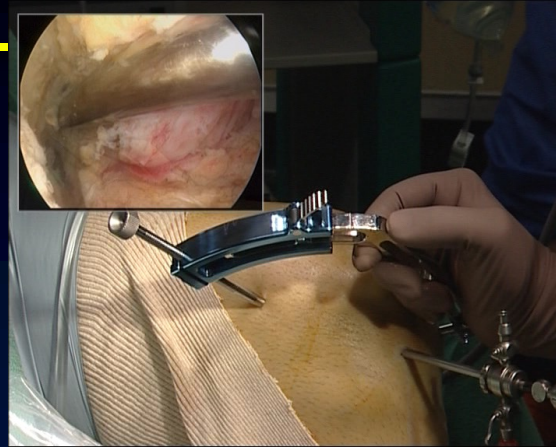
- ✓ Limit for menisci treatment
- ✓ Damage medial condyle



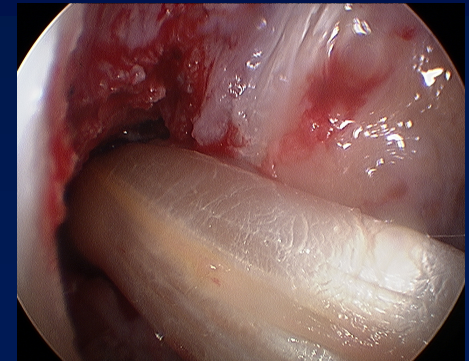
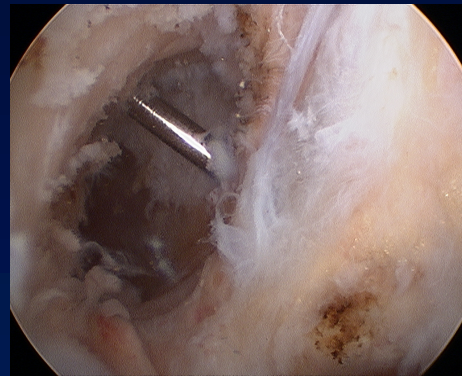
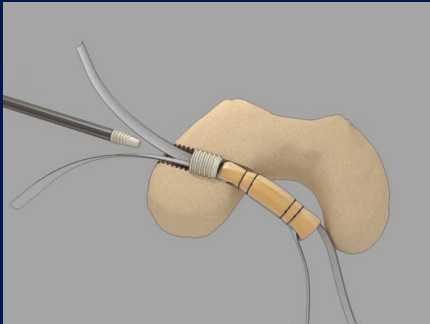
Out In Technique



- ✓ Technique
- ✓ Different guides



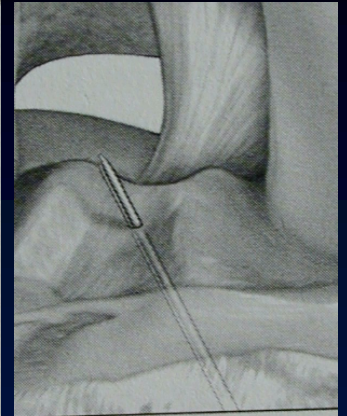
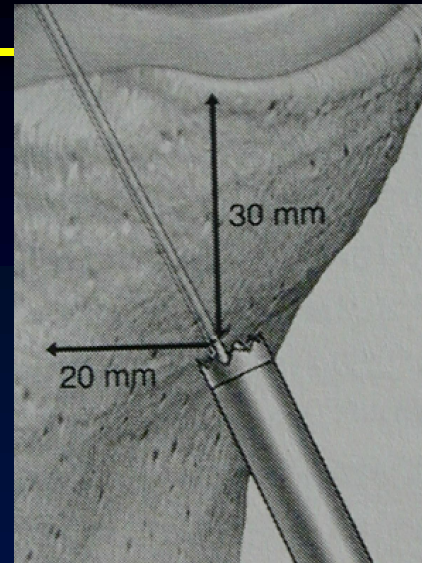
- ✓ Risks
- ✓ 2 incisions



Trans tibial



- ✓ Technique
 - ✓ Modify cortex tibial entry
 - ✓ Offset guide



- ✓ Risks
 - ✓ Damage tibial tunnel

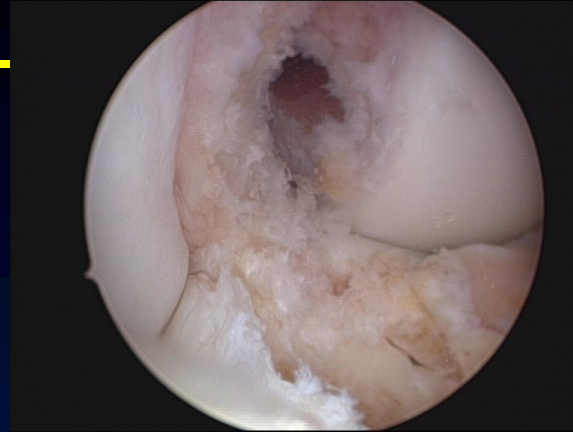


Are the spots so different?



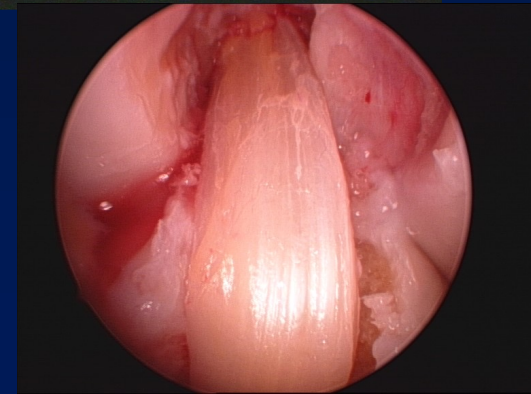
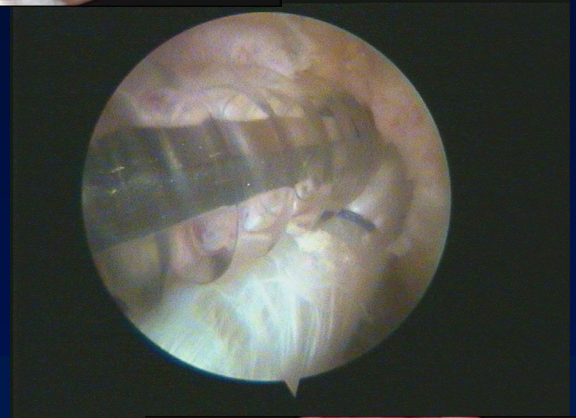
✓ Differences

- ✓ Shape of the entry point
- ✓ Track in the shaft



✓ Variants in

- ✓ Surgeon's choice / tip of the guide
- ✓ Keeping intact the remnants
- ✓ Guide stability, shape
- ✓ Sizes of the drill guided (2mm)
- ✓ The size of the graft in the tunnel and its displacement during fixation
 - ✓ Screw for BTB or Hamstring ACLR



Weak points of the "rules"



- ✓ Intra tester reliability
 - ✓ Change with patient's morphotype
 - ✓ Dominant hand
- ✓ Knee anatomy
- ✓ Clinically relevant?

Navigation



- ✓ Peroperative 3-D measurement

- ✓ Translation

Song Knee Surg Trauma Arthro 2009

- ✓ Rotation

Colombet CORR 2006

- ✓ Use of rigid bodies fixed into tibia and femur
- ✓ Useful to control the efficacy of ACL repair
- ✓ Does not fit with everyday practice...

Conclusion



- ✓ We do like to compare
 - ✓ SB vs DB
 - ✓ Hamstrings vs BTB vs ITB vs QT
 - ✓ With or without lateral tenodesis
 - ✓ Portals
- ✓ Do the one you get properly in your hands
- ✓ Learn others to
 - ✓ Improve your skill
 - ✓ In case of...
- ✓ Be oblique to control pivot shift
- ✓ You can reach the good spot anyway

