

Femoral tunnel

Does the approach really of importance?



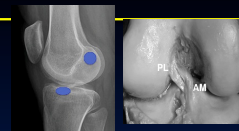
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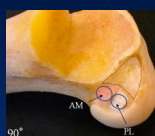
Base is Anatomy

✓ To go from A to B



✓ ACL femoral insertion spot

Post and Medial



Femoral tunnel is less important

✓ Direction, diameter, length



THE controversy

✓ How to reach the good spot



✓ With a drill guide

✓ Guided reamed tunnel



Single bundle samples

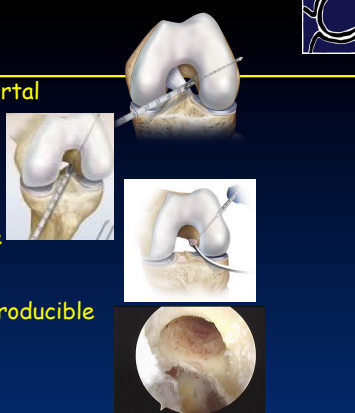


✓ Anteromedial portal

✓ Transtibial

✓ Out in technique

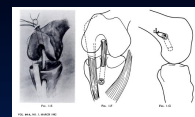
✓ Reliable and reproducible



Literature 93 hits the last 5 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...)

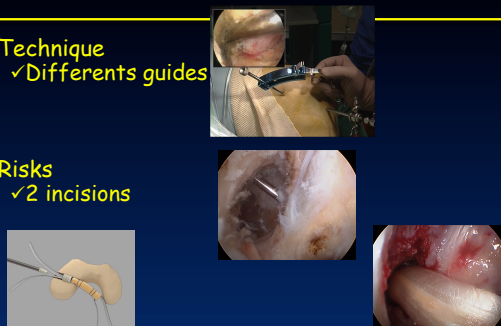
Anteromedial portal

- ✓ Technique
 - ✓ Need 120° flexion
 - ✓ Lower medial portal
 - ✓ Shoot & slide
 - ✓ Pilot hole
 - ✓ Offset Guide
- ✓ Risks
 - ✓ Limit for menisci treatment
 - ✓ Damage medial condyle



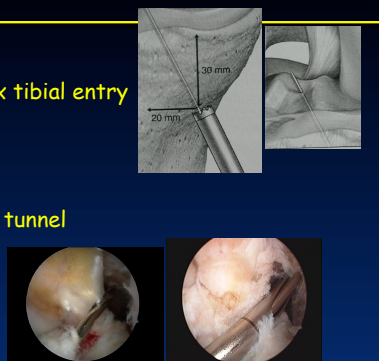
Out In Technique

- ✓ Technique
 - ✓ Different guides
- ✓ Risks
 - ✓ 2 incisions



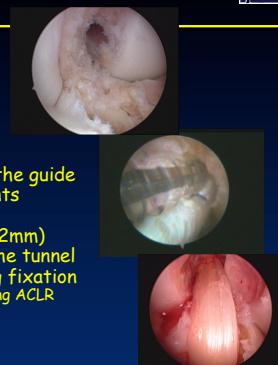
Trans tibial

- ✓ 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

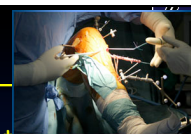


Weak points of the "rules"

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

Navigation

- ✓ Peroperative 3-D measurement
 - ✓ Translation
 - ✓ Rotation
- ✓ Use of rigid bodies fixed into tibia and femur
- ✓ Useful to control the efficacy of ACL repair
- ✓ Does not fit with everyday practice?



Song Knee Surg Trauma Arthro 2009
Colombet CORR 2006

Conclusion

- ✓ We do like to compare
 - ✓ SB vs DB
 - ✓ Hamstrings vs BTB
 - ✓ 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

