Tips and tricks to avoid interference between tunnels and hardwares

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Introduction

- In the setting of multiligament injuries, reconstruction of the torn ligaments is recommended.

- Tunnels for grafts and tunnels for interference fixation
Potential tunnels

• ACL
• PCL
• PLC
• Medial / POL
• ALL / LT
• Meniscal root repair
Avoid tunnel convergence

- Damage to the reconstruction grafts
- Loss of bone between tunnels
- Risk of fracture
- Fixation devices damage or failure
- Graft incorporation

Increase the risk of graft failure
Aiming the POL tunnel 15-20° medial to the Gerdy

Tibia: distal

Aiming the sMCL tunnel transversely and directing 30° distally

Tibia

Meniscus root repair
Tibia

Meniscus root repair
Aiming FCL tunnel 35° anteriorly


Femur

Aiming FCL tunnel and PT tunnels 20° anteriorly

Femur

ALL reconstruction
Femur

Aiming superficiel MCL tunnel 40° anteriorly and proximally

Aiming POL tunnel 20° anteriorly and proximally

Femur

Both superficial MCL and POL anteriorly and proximally at both 30 axial and 30 coronal angulations

Conclusion

• No compromise with anatomical landmarks.

• Therefore only orientation of the tunnels can be changed.
Conclusion

• **PCL tunnels** on tibial and femoral side: convergence with POL tunnel and sMCL

• **ACL tunnel on tibial side**: no big issue

• **ACL tunnel on femoral side**: FCL +/- PT +/- ALL
Thank you