COMPARISON OF DROP LANDING STRATEGIES BETWEEN PATIENTS WITH DEFICIENT MPFL AND PATIENTS AFTER MPFL RECONSTRUCTION

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CONFLICT OF INTERESTS

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• No Conflict of Interests to declare
BACKGROUND

• MPFL reconstruction has been a reliable and safe procedure for patients with recurrent patellar instability. ¹,²

• Although previous studies did not reveal kinetic and kinematic alternations of these patients during gait, it is unclear if this is the case for more demanding tasks.
OBJECTIVES

• The aim of the present study was to investigate …

  … the drop landing strategies that these patients adopt

• pre and post operatively
MATERIALS & METHODS

• Eight patients with confirmed MPFL symptomatic rupture (1\textsuperscript{st} Study group)
  23.2 ±4.1 years

• Eight patients 15.6 months after MPFL reconstruction (2\textsuperscript{nd} Study group)
  20 3.8 years
MATERIALS & METHODS

• A ten-camera motion analysis system

• Two force platforms

• Bilateral drop landings from a 23cm box

• Three trials
RESULTS

• MPFL deficient patients have…

- Vertical ground reaction forces to the deficient limb comparing with their normal one (p=0.05)

- Max knee and ankle moments to their deficient limb (p= 0.05 and 0.04 respectively).
RESULTS

- Operated patients had ...

- similar vertical GRFs in both limbs

Max knee angle to the uninvolved limb (p=0.05)

Max knee moment to the normal limb (p=0.009)
CONCLUSION

• This study demonstrated that the MPFL deficient patients burden their injured limb during landing.

• Sixteen months after MPFL reconstruction the patients do not return to normal landing.

• They protect their operated limb by altering the kinematics of the uninjured one.
REFERENCES
