

PHYSEAL SPARING “OVER-THE-TOP” TECHNIQUE FOR ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION IN SKELETALLY IMMATURE PATIENTS: ANALYSIS OF 43 CONSECUTIVE CASES AT MEAN 11 YEARS FOLLOW UP



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DISCLOSURE

NOTHING TO DISCLOSE

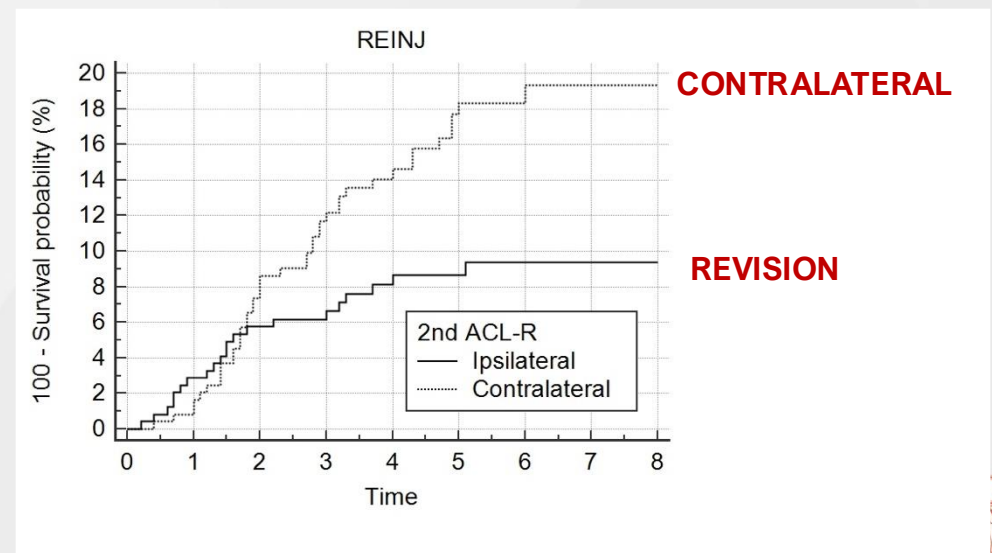
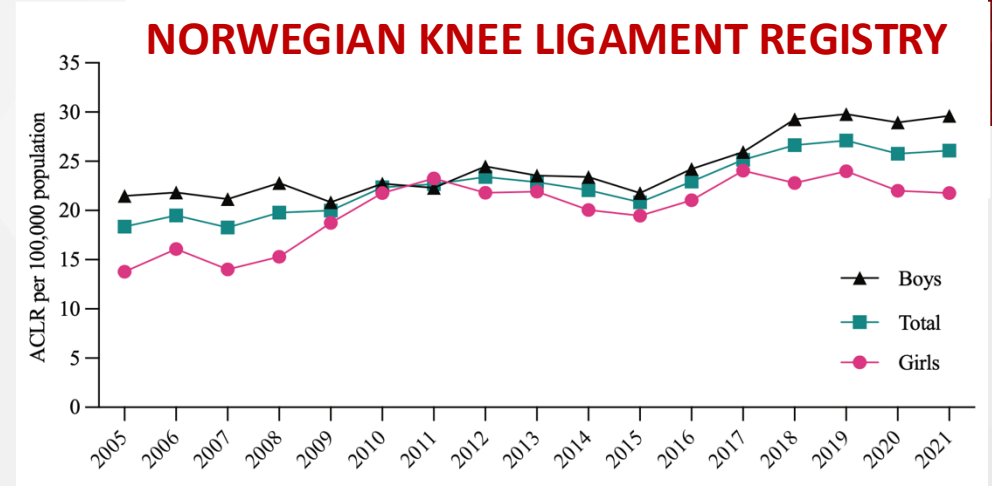


INTRODUCTION

**INCREASE IN PEDIATRIC ACL TEARS
(18→26/100.000)**

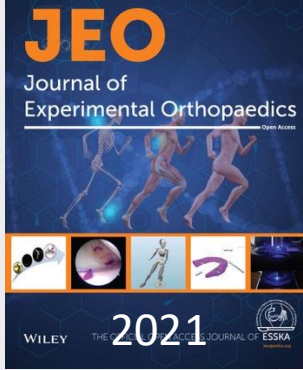
x2 RISK OF CONTRALATERAL TEAR

**55% SURVIVORSHIP FROM IPSI AND
CONTRALATERAL TEAR**



Caroline Kooy et al, AJSM 2023
Grassi, Zaffagnini et al, AJSM 2020

INTRODUCTION



Preliminary experience of an international orthopaedic registry: the ESSKA Paediatric Anterior Cruciate Ligament Initiative (PAMI) registry

Caroline Mouton^{1,2}, Håvard Moksnes³, Rob Janssen^{4,5,6}, Christian Fink^{7,8}, Stefano Zaffagnini⁹, Juan Carlos Monllau¹⁰, Guri Ekås^{3,11,12}, Lars Engebretsen^{3,13} and Romain Seil^{1,2,14*} 

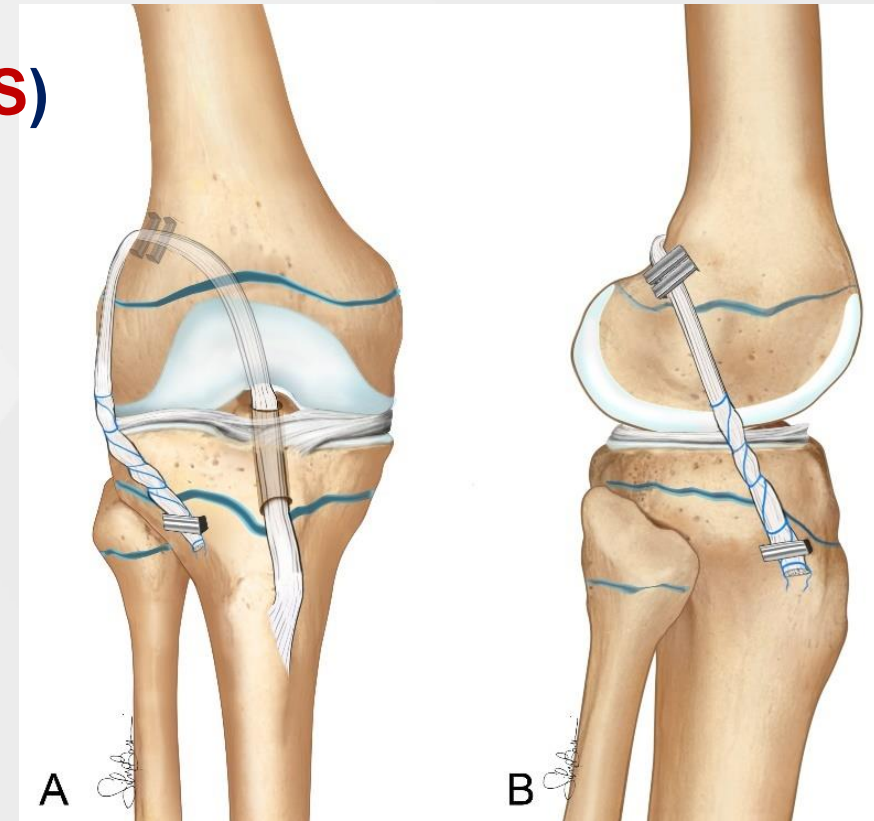


METHODS

- RETROSPECTIVE MONOCENTRIC STUDY
- 43 PATIENTS (74% M, 26% F; **13.3 ± 1.6 YEARS**)
- OVER THE TOP + LET PHYSEAL SPARING
- MEAN FU: **11.0 ± 2.7 YEARS**

OUTCOMES:

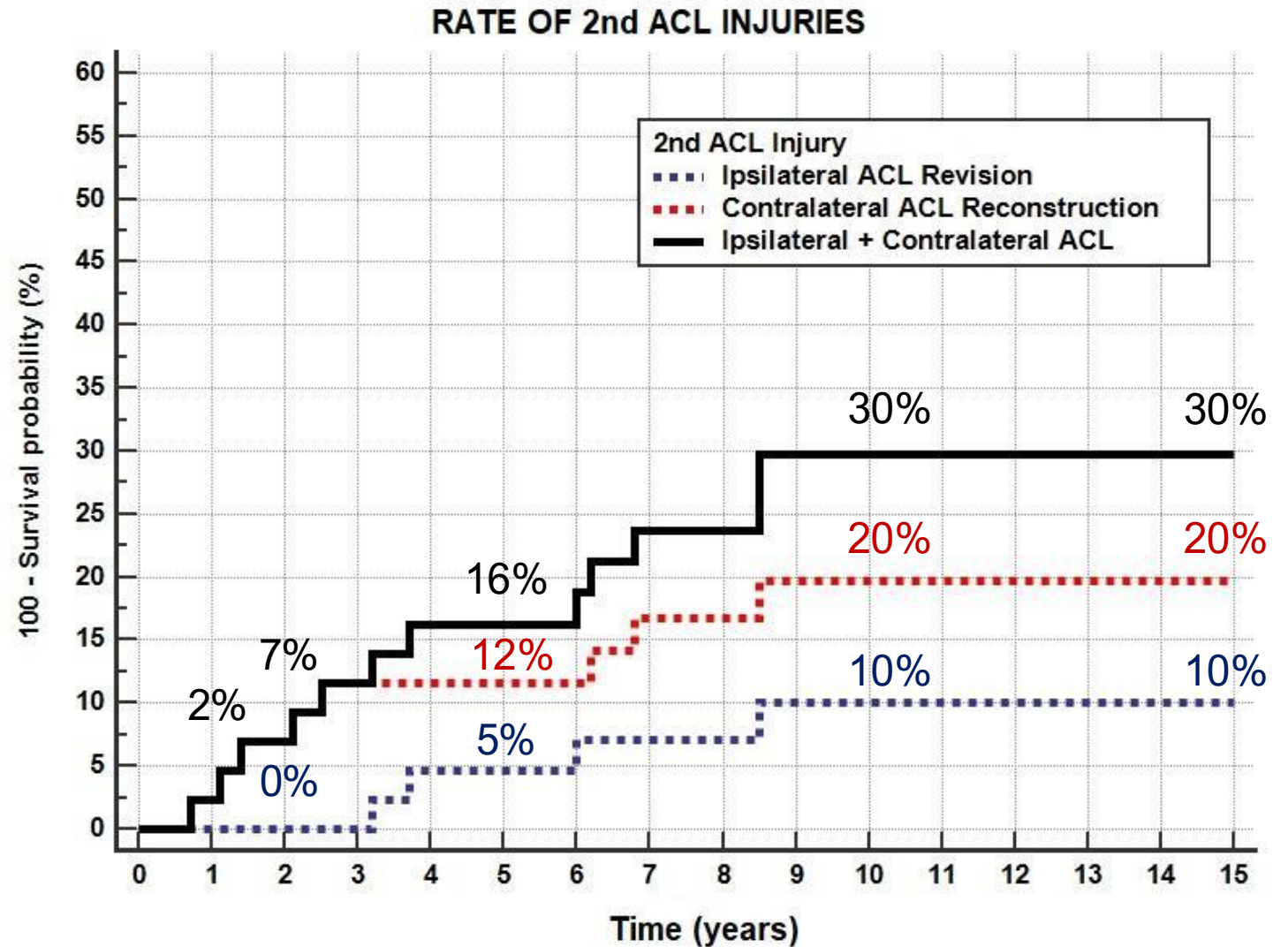
- **REOPERATIONS** IPSI & CONTRA-LATERAL
- **PROMs:** VAS, LYSHOLM, TEGNER, KOOS



RESULTS

SURGICAL FAILURES

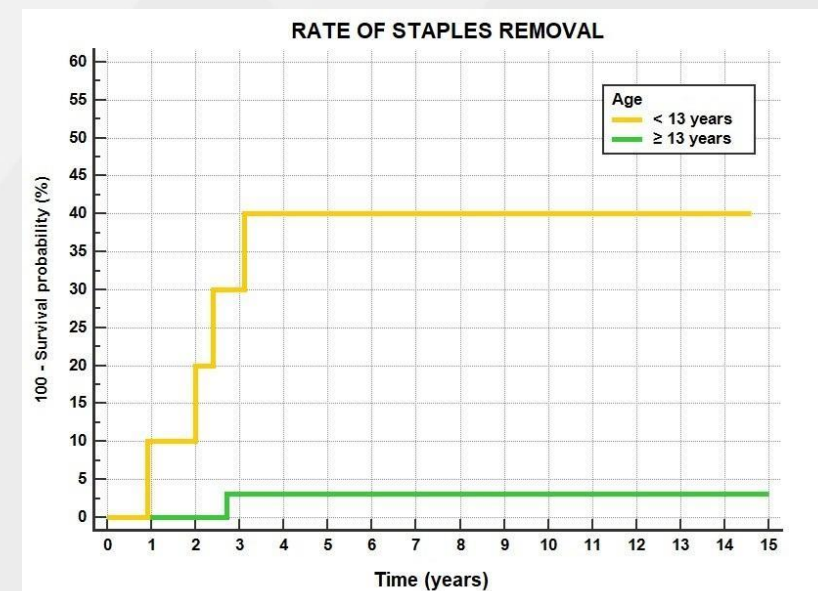
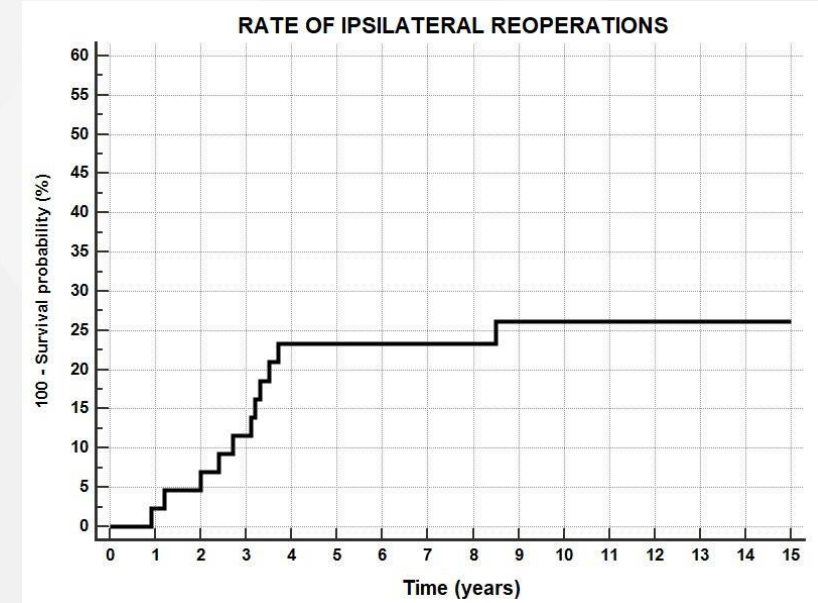
- 4 PZ (9%): **IPSilATERAL ACL REVISION** AT 5.3 ± 2.4 YEARS
- 8 PZ (19%): **CONTRALATERAL ACL RECONSTRUCTION**
- 12 PZ (28%): **2° INJURY** AT 4.2 ± 2.8 YEARS



RESULTS

REINTERVENTIONS

- 4 PZ (9%): **MENISCAL TREATMENT**
- 5 PZ (12%): **STAPLE REMOVAL**
(++ < 13AA)
- 11 PZ (26%): **AT LEAST 1 IPSILATERAL REINTERVENTION AT 3.0 ± 2.1 YEARS**



RESULTS

CLINICAL SCORES

KOOS: GOOD RESULTS IN ALL SUBCATEGORIES

<13 YEARS:

- **WORST LYSHOLM (82.0 vs 94.6, p=0.025)**
- **WORST KOOS-ADL (96.7 vs 99.9, p=0.025)**

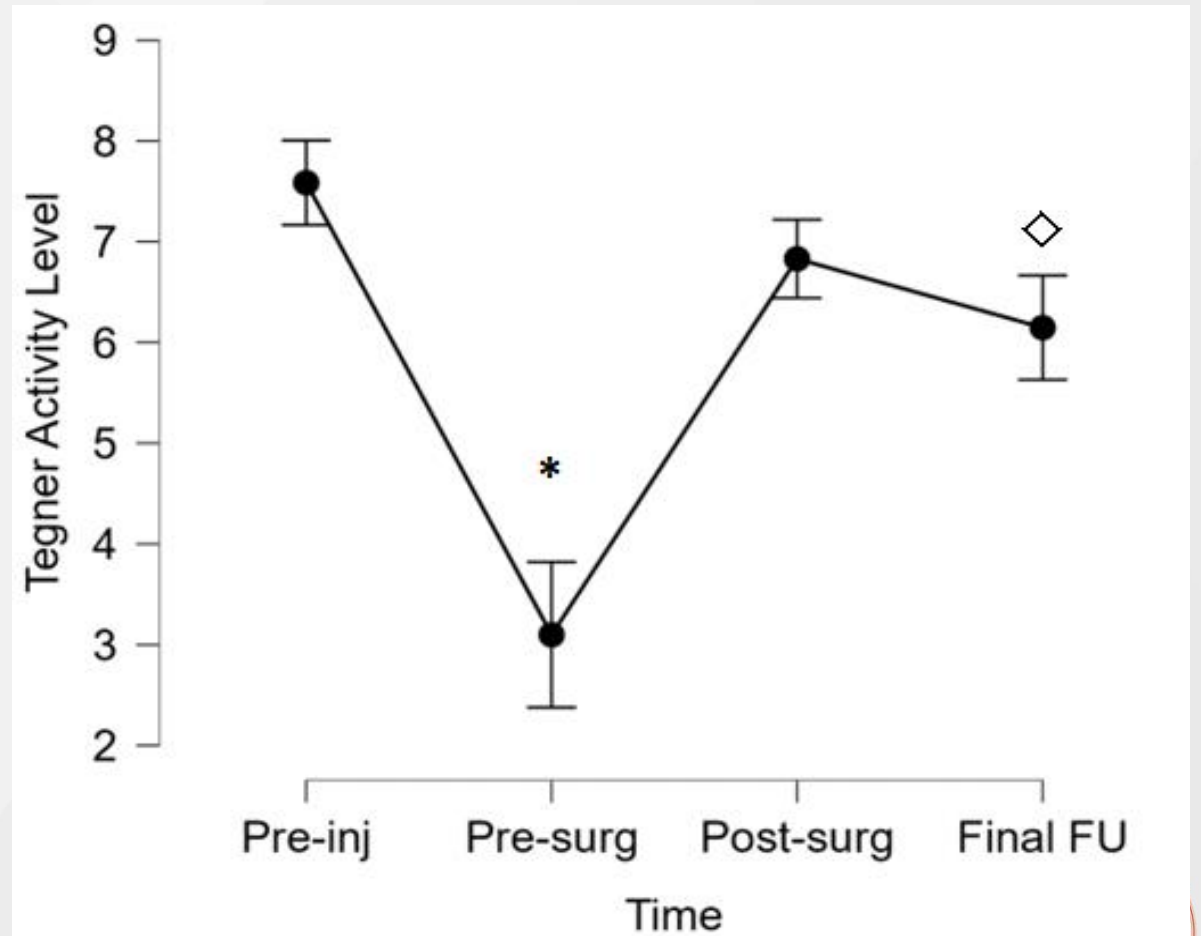
	Overall	Age<13 (n=33)	Age≥13 (n=10)	p-value
VAS Rest	0.8 ± 2.2	1.5 ± 3.2	0.6 ± 1.8	0.278
VAS Active	1.3 ± 2.3	1.6 ± 3.2	1.2 ± 2.0	0.608
Lysholm	91.5 ± 15.7	82.0 ± 23.4	94.6 ± 11.1	0.025
KOOS				
QoL	93.1 ± 12.6	92.1 ± 14.4	93.5 ± 12.2	0.767
Symptoms	92.6 ± 16.3	85.3 ± 22.4	94.9 ± 13.4	0.103
ADL	99.1 ± 4.0	96.7 ± 8.0	99.9 ± 0.3	0.025
Sport	97.2 ± 7.8	96.9 ± 8.2	97.3 ± 7.8	0.884
Pain	97.8 ± 5.4	95.9 ± 8.4	98.4 ± 4.1	0.218

RESULTS

CLINICAL SCORES

TEGNER:

- FINAL FOLLOW-UP 7
- PREOP 2 ($p < 0.001$)
- PRE-INJURY 8 ($p < 0.001$)



TAKE HOME MESSAGE

- **HIGH SURVIVORSHIP** (90%) FROM ACL FAILURE AT LONG-TERM FOLLOW-UP
- **26% NEW SURGERY** AT THE IPSILATERAL KNEE
- **<13 YEARS:** HIGHER HARDWARE INTOLERANCE, WORST PROMs





Thank you

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