ACL R- WITH LET AND HUGHSTON PROCEDURE IN ACL AND MCL INJURY PROVIDES GOOD STABILITY AND LOW REVISION WITHOUT INCREASING THE COMPLICATION RATE: A CASE-CONTROL STUDY AT 8 YEARS OF FOLLOW-UP.

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DISCLOSURE

- **S.Z.:**
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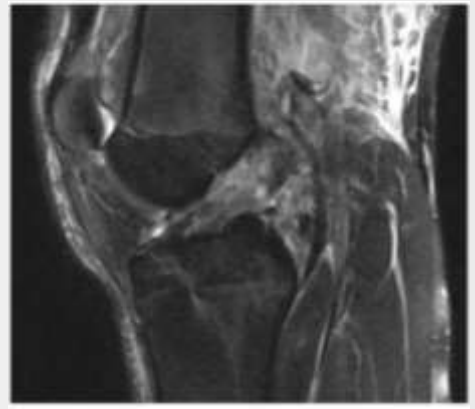
- OTHER AUTHORS DECLARES NO C.O.I.

BACKGROUND

ACL + MCL tears:

- ✓ Still no consensus in the management of MCL in combined setting (conservative / repair / MCL reconstruction)
- ✓ MCL surgery → increased stiffness



Figueroa , Schenck et al. JISAKOS 2020

Scandinavian registry study (~20'000 patients):

- ✓ ACL + MCL (conservative) → x2 times of ACL-R failure
- ✓ ACL + MCL (reconstruction) → lower clinical scores compared to ACL-R alone

E. Svantesson et al. KSSTA 2021

NEED FOR IMPROVEMENT OF THE MANAGEMENT OF THIS COMBINED INJURY

HUGHSTON PROCEDURE

CONSERVATIVE TREATMENT

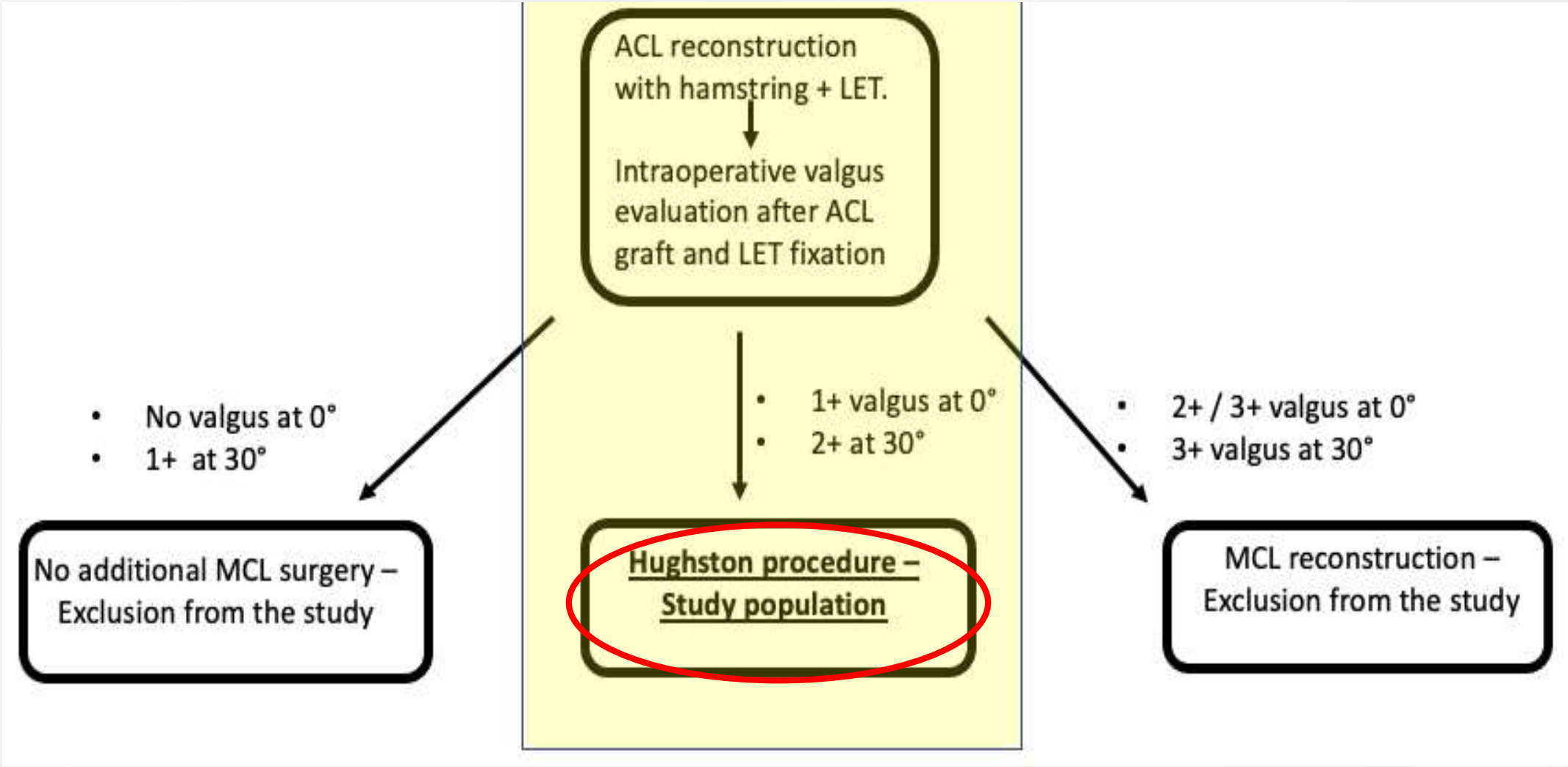
MCL RECONSTRUCTION

"HUGHSTON PROCEDURE"

- Bridging procedure
- Only proximal MCL tears
- Moderate valgus laxity
- No need for graft / hardware
- Less invasive than MCL-R

Hughston et al. AJSM 1996

ACL-MCL TREATMENT ALGORITHM



MATERIAL AND METHODS

RETROSPECTIVE ANALYSIS of 70 PATIENTS (35 PER GROUP)
FOLLOW-UP OF 8.1 YEARS (MIN 2)

HUGHSTON group

ACL + MCL injury grade II with chronic instability

ACL-R + LET + «Hughston» procedure

MATCHED 1:1 BY:

- ✓ AGE (± 5 YEARS)
- ✓ SEX (M/F)
- ✓ FOLLOW-UP TIME (± 3 YEARS)
- ✓ MENISCAL LESIONS (YES / NO)

CONTROL group

Isolated ACL lesion with NO medial instability

ACL-R + LET

MATERIAL AND METHODS

CLINICAL SCORES

- **LYSHOLM** score
- **VAS** score
- **TEGNER** score
- **KOOS** score

OBJECTIVE EVALUATION

- **KiRA Pivot Shift** quantification
- **KT-1000**

SURGICAL FAILURE:

✓ ACL revision / graft rupture (MRI)

CLINICAL FAILURE:

✓ PS grade 2+ and/or KiRA ≥ **1.5 mm/s^2** side-to-side and/or

✓ KT-1000 side-to-side **≥ 5 mm** or **surgical failure**

RESULTS:

ACL GROUP vs HUGHSTON GROUP:

- **NO DIFFERENCE IN CLINICAL SCORE**
  VAS 1.5±2.o vs 2.5±3.1 ; p=0.15
- TEGNER 6 (3-6) vs 6 (2-7) ; p=0.88
- LYSHOLM 96 vs 93 ; p=0.20
- KOOS subscales ; p= 0.21 – 0.80

- **NO DIFFERENCE IN OBJECTIVE STABILITY**
- KiRA S-S: 0.2±1.2 vs 0.6±0.9 ; p=0.90
- KT 1000 S-S: 1.5±2.4 vs 1.7±2.0 ; p=0.86

- **VALGUS ASSESSMENT (HUGHSTON) at 30° :**
- 1+ in 4 (12%) patients
- 2+ in 2 (6%) patients

MEASURE	Hughston group	Control group	p-value
KiRA INJ	3.2 (0.9)	3.1 (1.2)	0.713
KiRA CONTRA	2.6 (0.8)	2.9 (1.6)	0.623
KiRA S-S	0.6 (0.9)	0.2 (1.2)	0.898
KT 25 N INJ	6.6 (2.6)	7.2 (2.8)	0.150
KT 25 N CONTRA	5.0 (1.7)	5.7 (2.3)	0.146
KT 25 N S-S	1.7 (2.0)	1.5 (2.4)	0.864
KT man max INJ	9.3 (3.1)	8.8 (2.9)	0.888
KT man max CONTRA	7.2 (1.9)	7.4 (2.1)	0.693
KT man max S-S	2.3 (2.8)	1.5 (2.2)	0.731
ROM active INJ	127.1 (7.1)	130.2 (5.2)	0.102
ROM passive INJ	131.9 (5.2)	130.9 (5.1)	0.405

RESULTS: SURGICAL FAILURE

SURGICAL FAILURE:

✓ 2 (6%) PER GROUP (n.s.)

CLINICAL FAILURE:

✓ 5 (17%) ACL GROUP

✓ 7 (25%) IN THE HUGHSTON GROUP (n.s.)

REOPERATION:

✓ 4 (11%) ACL GROUP

✓ 5 (14%) IN THE HUGHSTON GROUP (n.s.)

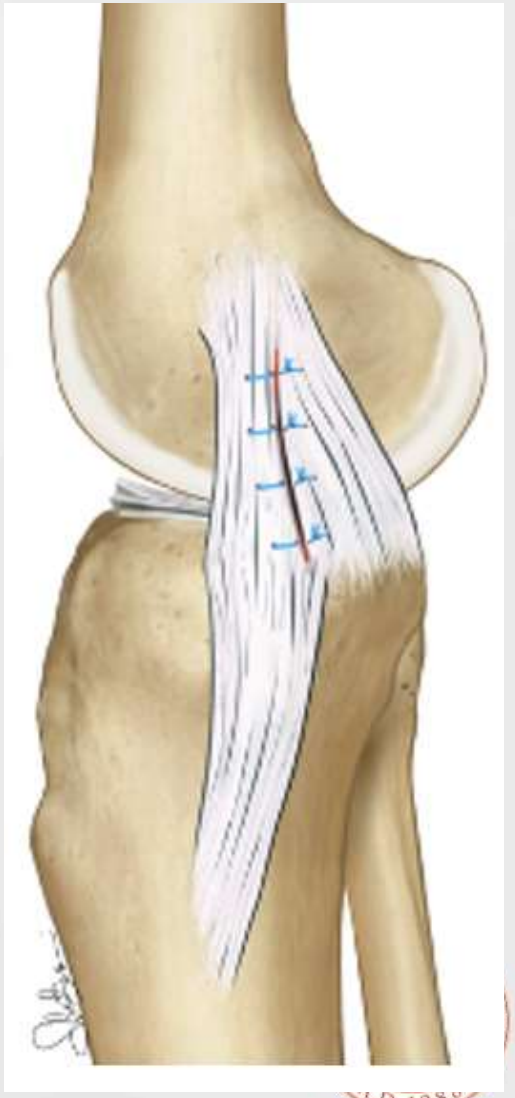
1 M.U.A (3%) in the Hughston group.

REOPERATION	HUGHSTON GROUP	CONTROL GROUP
ACL REVISION	2	2
HARDWARE REMOVAL	1	2
MUA	1	0
MENISCUS SCAFFOLD	1	0
TOTAL	**5**	**4**

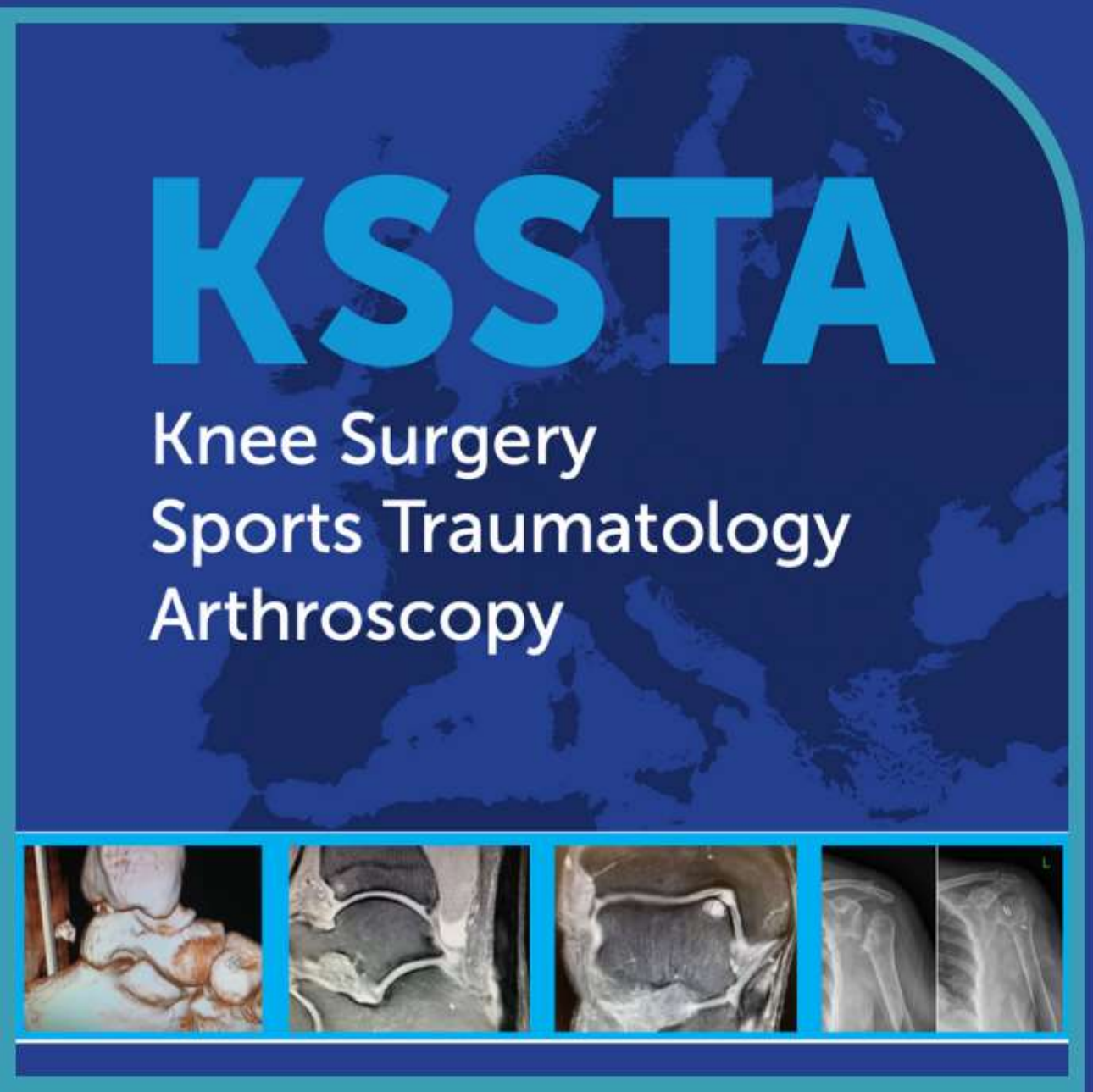
→ NO DIFFERENCE

CONCLUSION

- «ACL+MCL» INJURY TREATED WITH HUGHSTON PROCEDURE HAS SAME FAILURE RATES AS ISOLATED ACL-R
- HUGHSTON PROCEDURE DOES NOT NEGATIVELY AFFECTS CLINICAL SCORES
- NO INCREASED STIFFNESS-RELATED COMPLICATIONS
- COST-EFFECTIVE AND EASY
- SELECTED CASES!



SHOULD BE INCLUDED IN YOUR SURGICAL ARMAMENTARIUM



Thank you!

European Society of Sports Traumatology, Knee Surgery & Arthroscopy

KSSTA

The official journal of ESSKA

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