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CONGRESS

Patients 40 Years or Older Demonstrate Comparable Return to Sport Rates, Re- Injury Rates, and 2-Year PROMs Following Medial or Lateral Meniscus Repair Compared to Patients Younger than 40

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Introduction

- **Meniscal injuries impact knee biomechanics**
- **Traditional approach: repair for young, meniscectomy for older patients**
- **Systematic reviews: patients ≥ 40 show outcomes comparable to younger populations**
- **Study aim: compare outcomes in patients ≥ 40 vs. < 40 years**
- **Stratified by isolated repair vs. with ACL reconstruction**

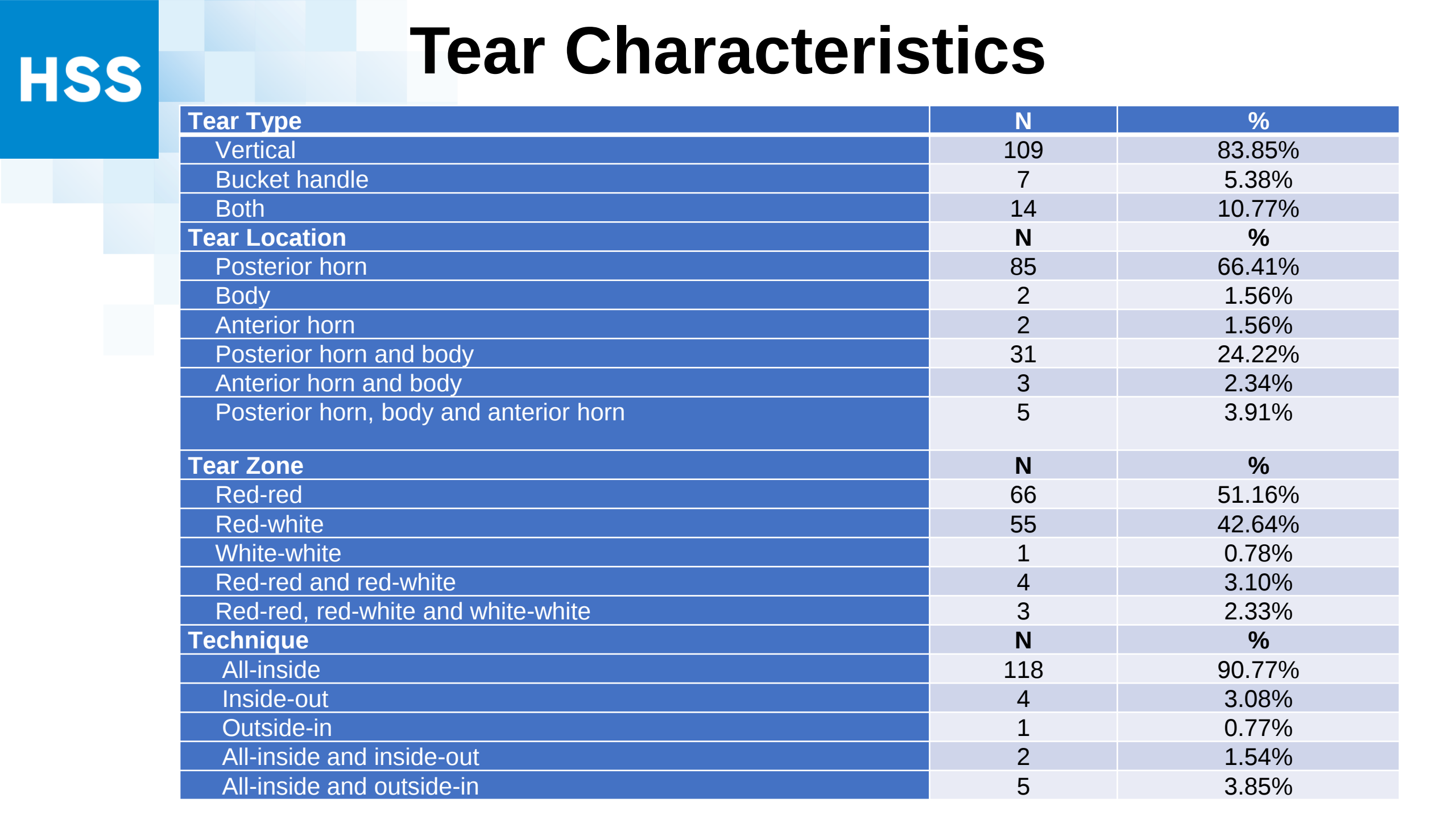
Methods

- **Prospective cohort study: 2010-2021**
- **Single center, age >18 years**
- **Four cohorts: <40 vs $\geq$ 40 years, isolated vs with ACL recon**
- **Outcomes: PROMs, RTS, reinjury rates**



Demographics

Variable		
	Mean	SD
Age	33.63	10.65
BMI	25.19	4.18
Sex	N	%
Male	73	56.15%
Female	57	43.85%
Race	N	%
White	8	6.15%
African American	96	73.85%
Asian/Pacific Islander	6	4.62%
Other	20	15.38%
Procedure	N	%
Medial meniscus repair	86	66.15%
Lateral meniscus repair	35	26.92%
Medial and lateral meniscus repair	9	6.92%



Tear Characteristics

Tear Type	N	%
Vertical	109	83.85%
Bucket handle	7	5.38%
Both	14	10.77%
Tear Location	N	%
Posterior horn	85	66.41%
Body	2	1.56%
Anterior horn	2	1.56%
Posterior horn and body	31	24.22%
Anterior horn and body	3	2.34%
Posterior horn, body and anterior horn	5	3.91%
Tear Zone	N	%
Red-red	66	51.16%
Red-white	55	42.64%
White-white	1	0.78%
Red-red and red-white	4	3.10%
Red-red, red-white and white-white	3	2.33%
Technique	N	%
All-inside	118	90.77%
Inside-out	4	3.08%
Outside-in	1	0.77%
All-inside and inside-out	2	1.54%
All-inside and outside-in	5	3.85%



Results: With ACL Reconstruction (N=99)

- **IKDC**
 - <40y: 85.91, ≥40y: 84.23 (p=0.58)
- **Marx**
 - <40y: 9.01, ≥40y: 7.55 (p<0.001)
- **RTS**
 - <40y: 70%, ≥40y: 75% (p=0.80)
- **Failure**
 - <40y: 20.0%, ≥40y: 20.7% (p>0.99)
- **7.6 year mean follow-up**



Results: Isolated Repair (N=31)

- **IKDC**
 - **<40y: 81.67, ≥40y: 83.68 (p=0.72)**
- **Marx**
 - **<40y: 7.95, ≥40y: 5.5 (p<0.001)**
- **RTS**
 - **<40y: 50%, ≥40y: 80% (p=0.24)**
- **Failure**
 - **<40y: 11.1%, ≥40y: 0.0% (p=0.54)**
- **4.0 year mean follow-up**

Results: Comparison

- **Failure rates**
 - ACLR: 20.2%
 - Isolated: 7.4%
- **RTS (≥ 40 y)**
 - ACLR: 75%
 - Isolated: 80%
- **No difference in IKDC between age groups**
- **Marx scores lower in ≥ 40 y ($p < 0.001$)**



Discussion

- **No age-based differences in failure rates**
- **Marx scores lower in ≥ 40 y group (confounded by age)**
- **≥ 40 y group: higher RTS (though not significant)**
- **Confirms Steadman's findings on failure rates**
- **Novel data: RTS data for ≥ 40 y after meniscus repair**



Conclusions & Limitations

- **Conclusions**
 - Similar outcomes across age groups
 - Meniscus repair viable in patients $\geq 40y$
 - Age alone should not determine repair vs. meniscectomy
- **Limitations**
 - 2-year follow-up
 - Single center, small sample size
 - Possible selection bias

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