

Early Outcomes and Return to Work after MACI in a Workers Compensation Population

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Disclosure

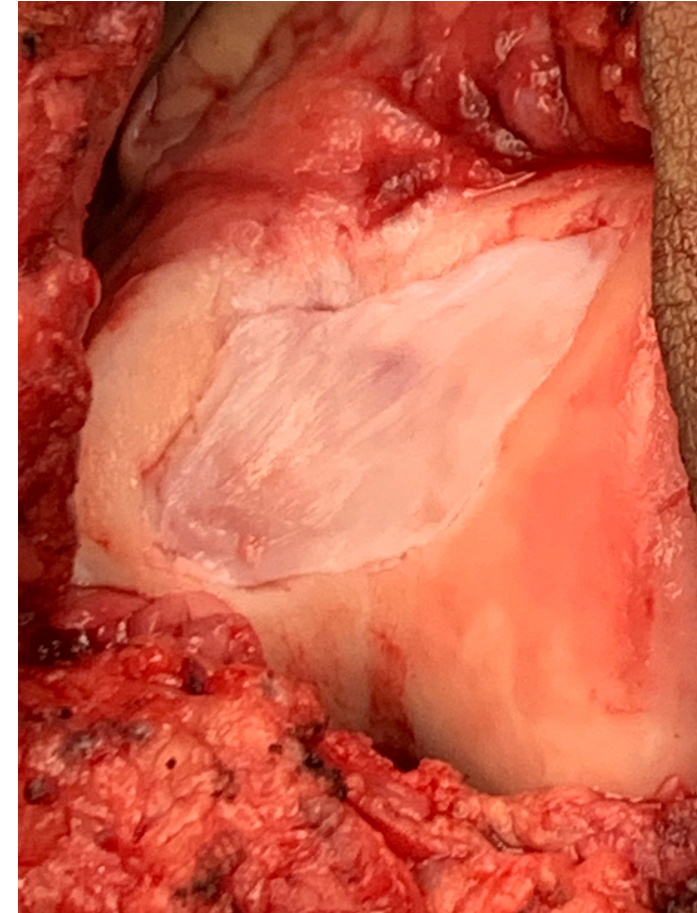
- **Member of Vericel Speaker Bureau**
- **Chair of ISAKOS Education Committee**
- **Member of ICRS Education Committee**

Study Design

- Prospectively followed cohort of 14 patients who underwent a MACI procedure between February 2017 and December 2020
- Preoperative and postoperative followup at 3 months, 6 months and one year with PROM to evaluate pain, knee function and symptoms and overall well being with KOOS and WOMAC and return to work status.
- All patients underwent a MACI resurfacing procedure +/- concomitant procedure
- Time of return to work at full or modified work activity

Case Series of 14 Consecutive Patients

- 14 patients underwent MACI procedures during
- 14 patients with 1 year followup
- 8 male
- 6 female
- Average age 39.2 years
- BMI 29.3 kg/m²
- 1 Patient excluded from data due to cancer diagnosis and treatment interrupting care



Lesion characteristics

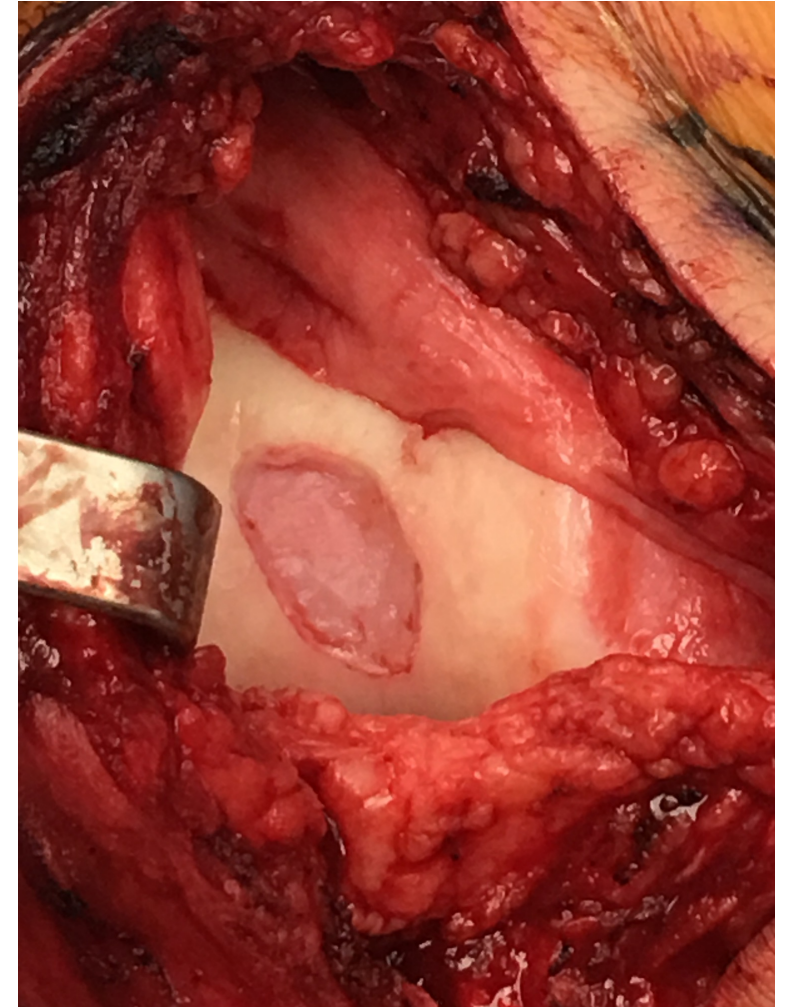
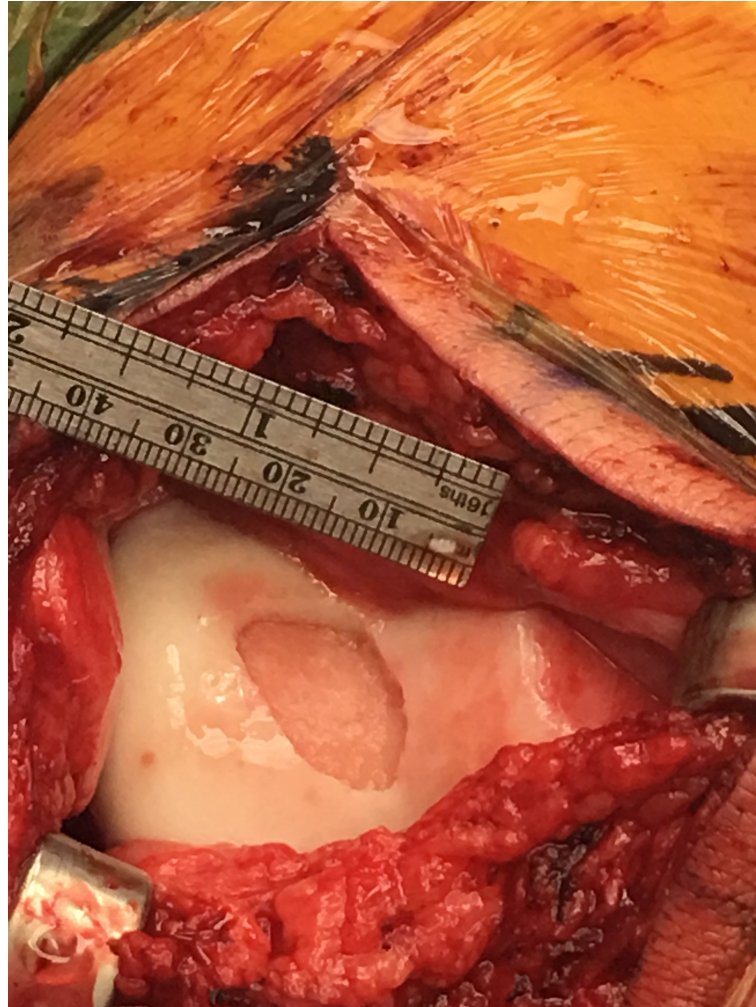
- Isolated single lesions
 - #Patients-14
 - Medial femoral condyle-1
 - Lateral Femoral Condyle-2
 - Trochlea-4
 - Patella-1
- Multiple lesions
 - MFC/Trochlea-1
 - LFC/Trochlea-1
 - MFC/Trochlea/Pat-1
 - MFC/LFC/Pat-1
 - MFC/LFC/Trochlea-1

1 patient not included due to unrelated cancer diagnosis affecting orthopedic care



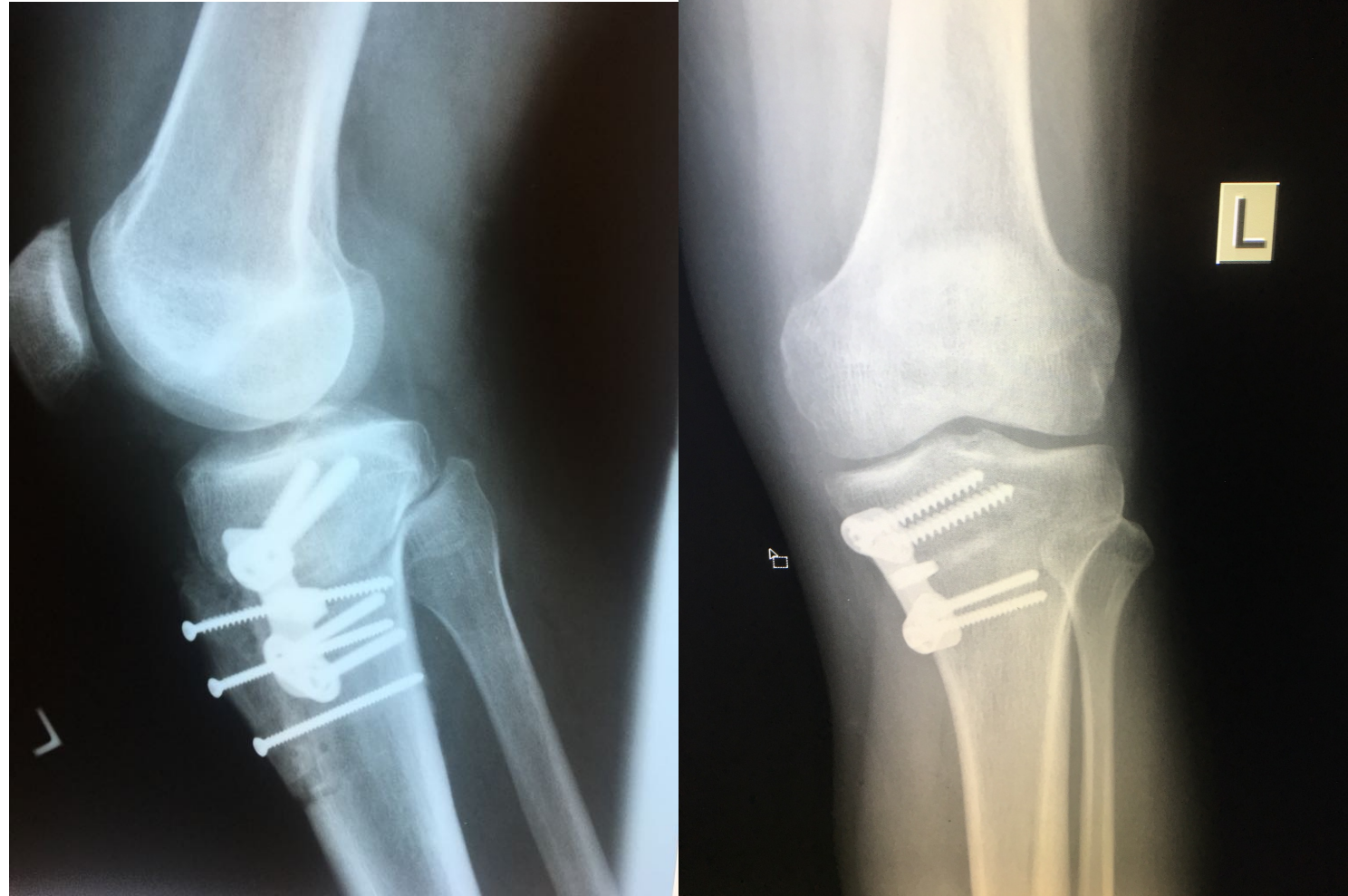
Cartilage Defect Characteristics

- Average lesion size
 - Mean defect size 5.45 cm²
 - Lesion per knee 1.64 defects
 - Range 1-18 cm²
 - Defect size per knee 9.65 cm²



Numbers of Patients with Concomitant Procedures

- Isolated Cartilage Resurfacing- 5
- Concomitant procedures
- HTO/TTO- 2
- TTO- 7



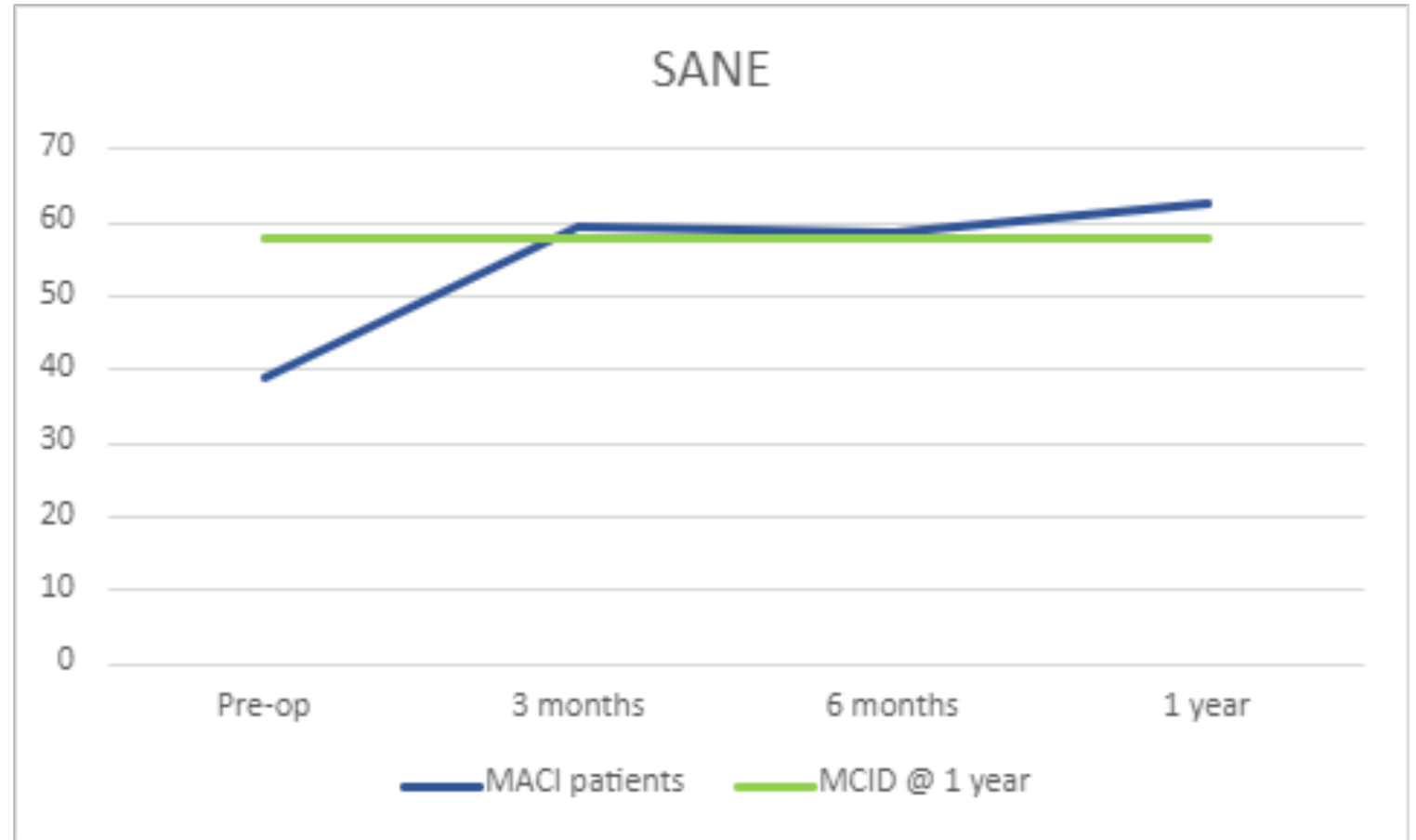
SANE Knee Score

• Preop 38.8

• 1 year 62.8

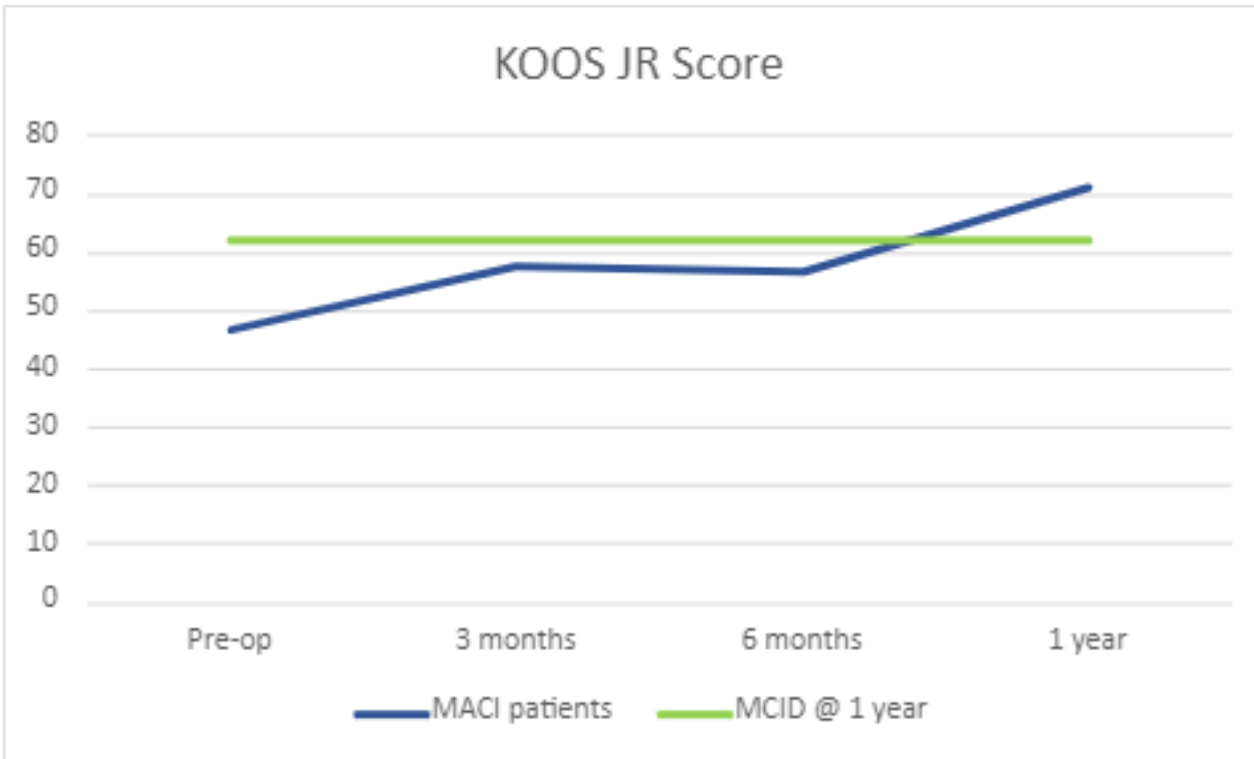
• Difference 24.0

• MCID @ 12 months $\Delta 19$



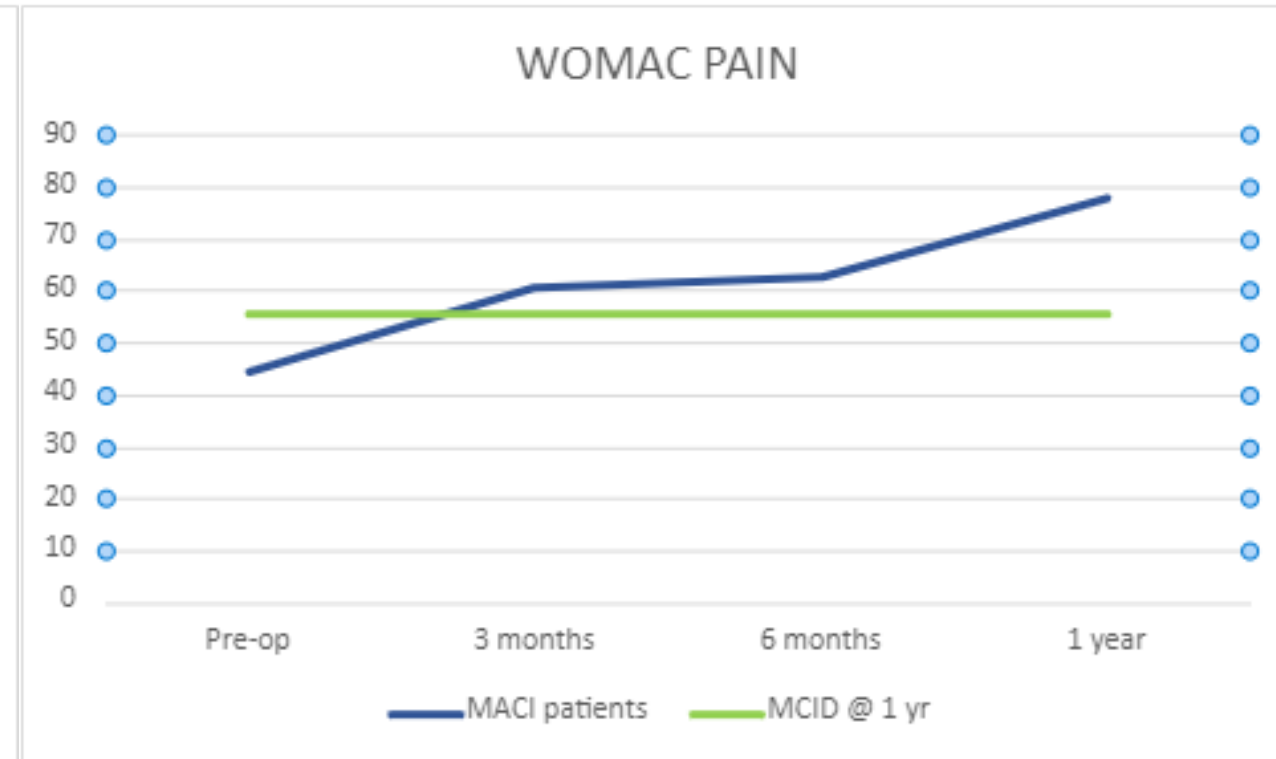
Pre-treatment	3 month	6 month	1 year
38.84615385	59.61538462	58.61538462	62.84615385

KOOS Jr Score



- MCID@ 12 months Δ 15.1

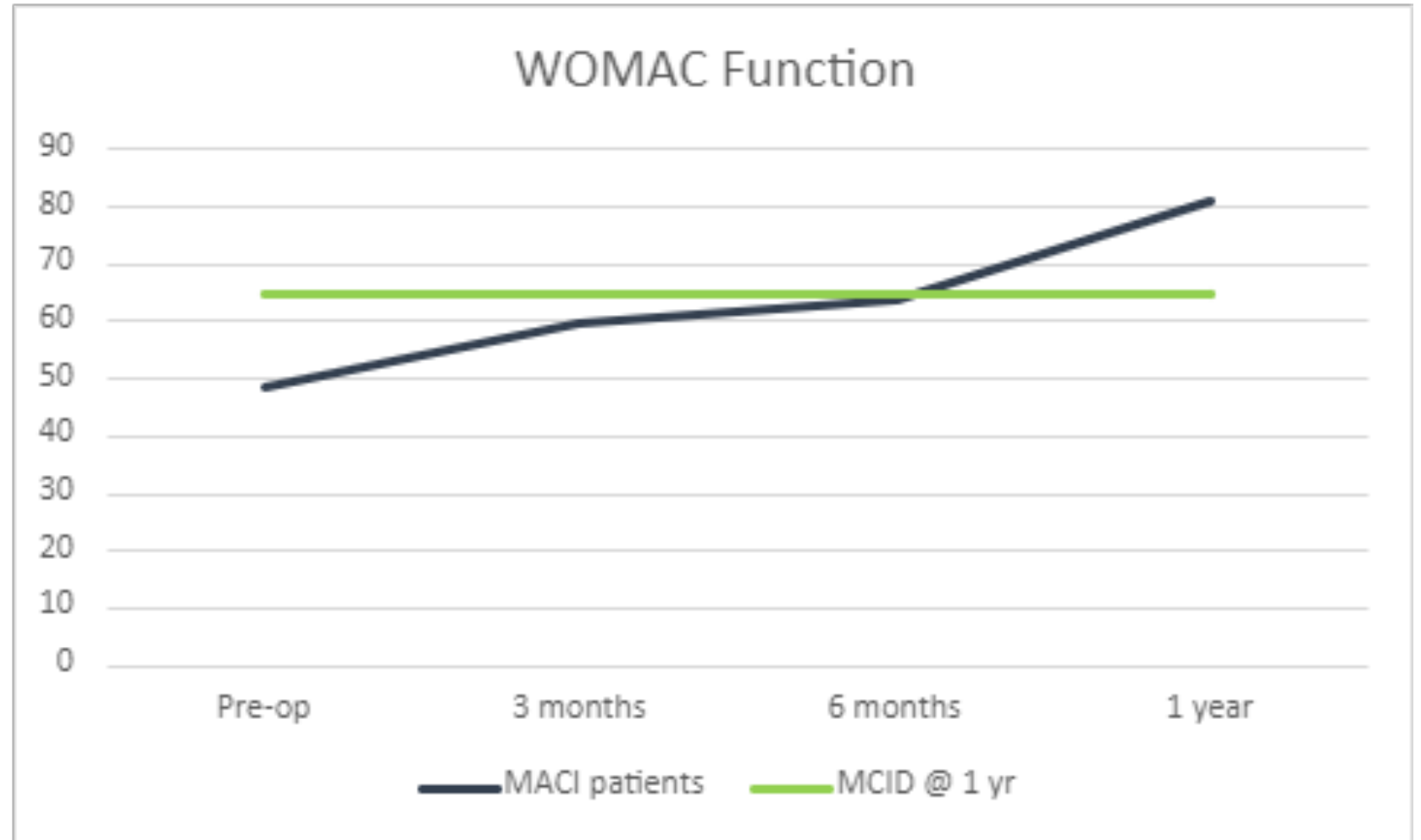
KOOS WOMAC Pain



- MCID @ 12 months Δ 11.0

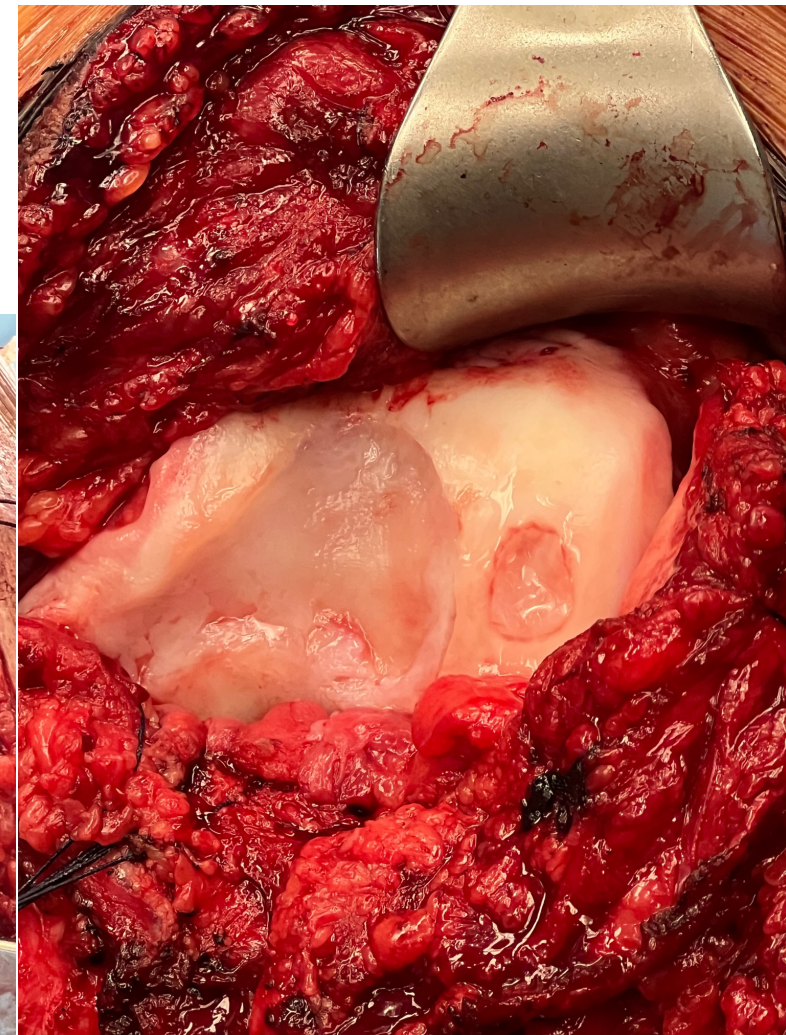
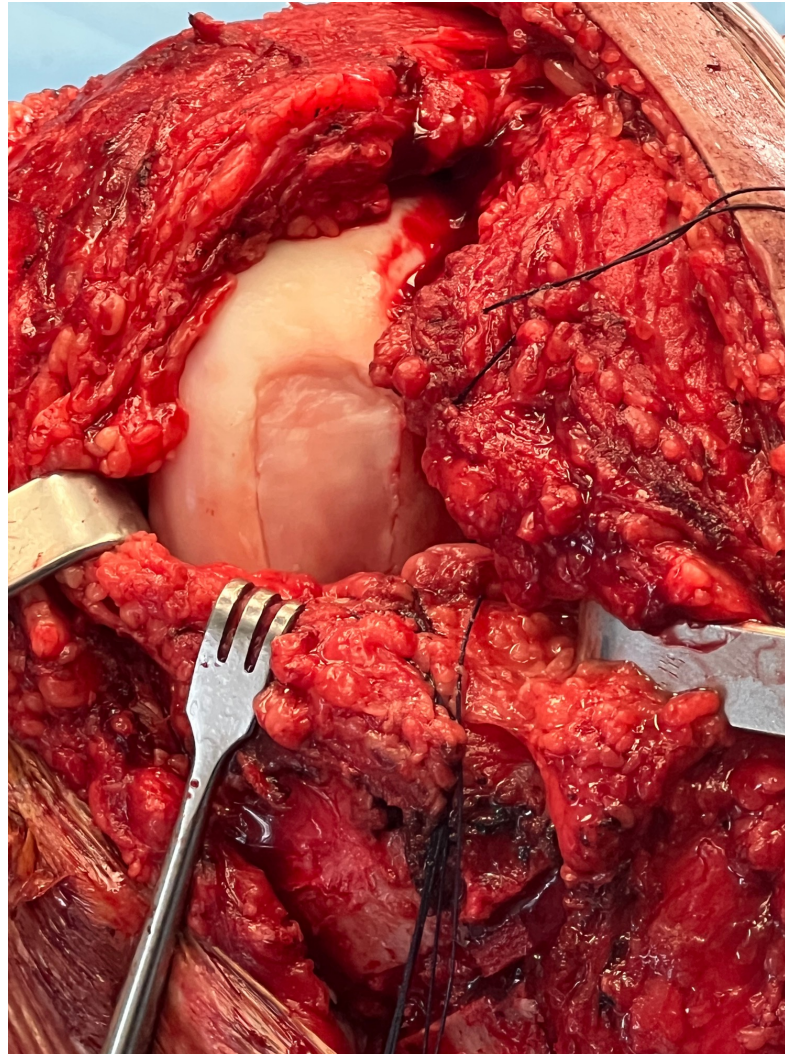
WOMAC Function

- Preop 48.6
- 1 year 81.2
- Difference 32.6
- MCID @ 12 months Δ 16



Return to Work Activity

- Average time returned to modified duty- 2.54 months
- 69 % returned to full duties / same occupation prior to injury
- 86% returned to work within 9 months
- Average time to return to full duty activity- 8.44 months

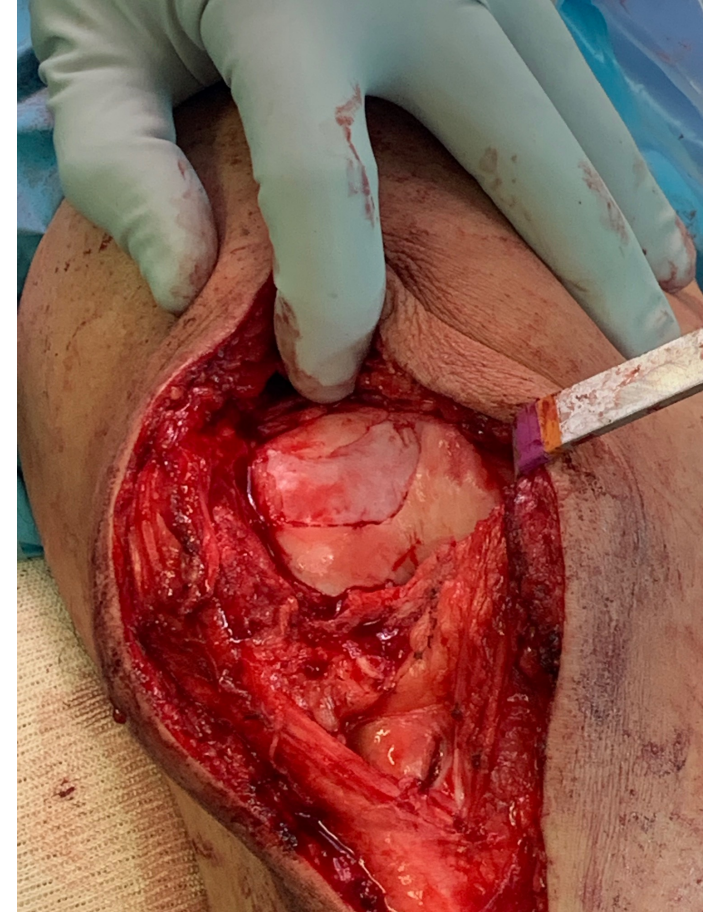
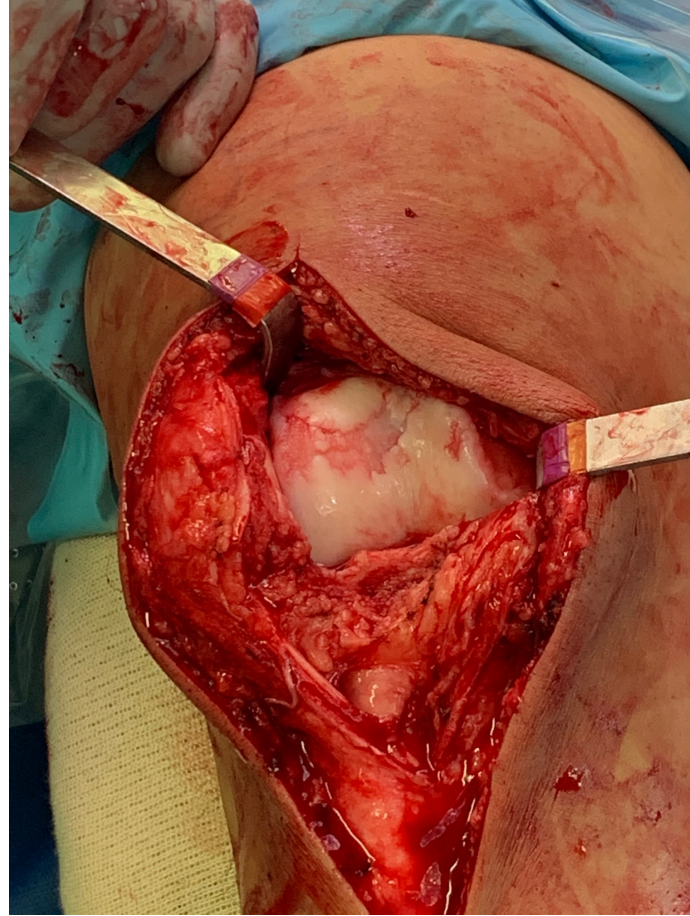


Conclusions

Patients with MACI demonstrated clinically and statistically significant improvement in KOOS, SANE and WOMAC scores

MCID improvement noted in VAS scale improvement

Return to full duty noted in 9/13 patients



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