

# PREDICTORS OF LONG-TERM PATIENT-REPORTED OUTCOME MEASURES (PROMS) AFTER COLLAGEN MENISCUS IMPLANT (CMI) FOR PARTIAL MENISCUS DEFECTS

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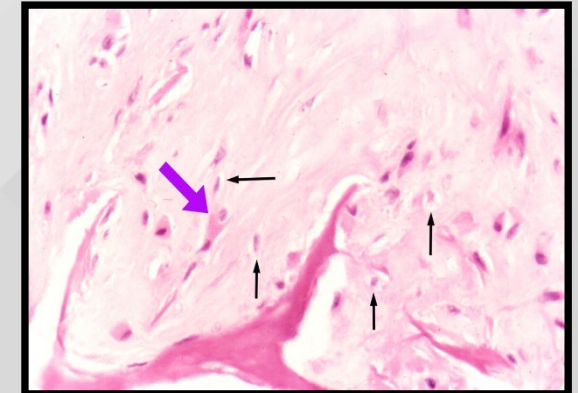
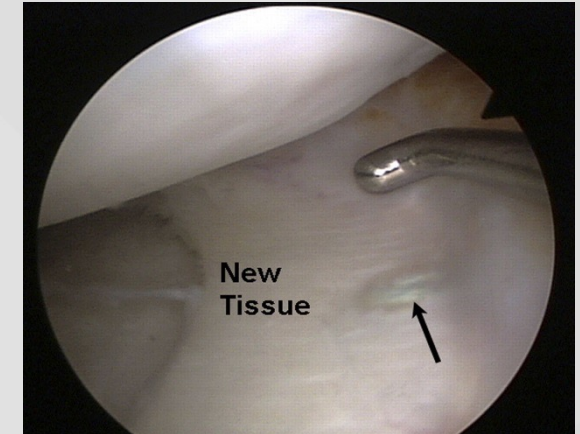
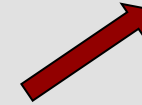
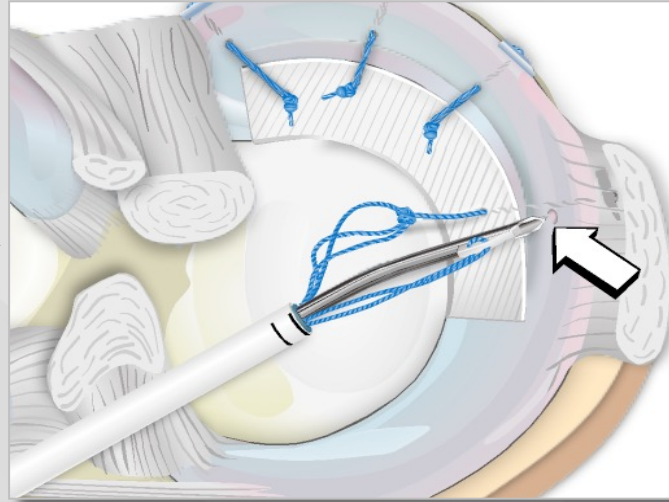
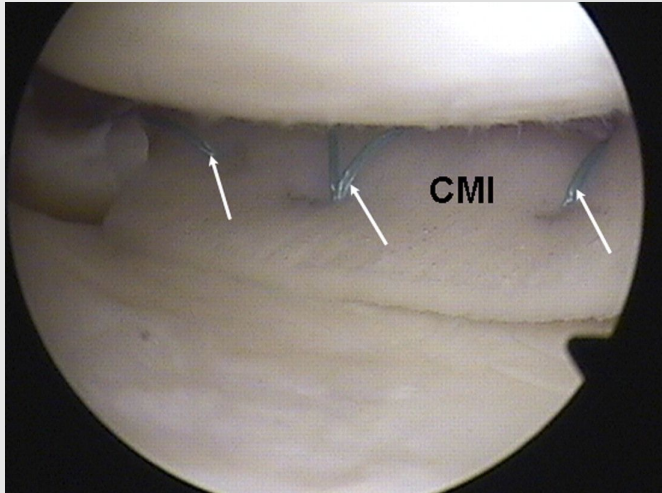


# DISCLOSURE

- **S.Z.:**  
consultant for Smith and Nephew and Depuy Synthes  
research support from Medacta and Depuy Synthes
- All other authors declare no COI



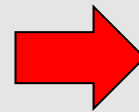
# COLLAGEN MENISCUS IMPLANT - CMI



- COLLAGEN TYPE I (BOVINE)
- PROGRESSIVE REABSORPTION 6-18 MONTHS
- EVIDENCE OF MENISCUS-LIKE TISSUE REGENERATION
- ARTHROSCOPICALLY IMPLANTED – "ALL-INSIDE" SUTURE

# INDICATIONS FOR SCAFFOLD IMPLANT

- ACUTE LESIONS → (irreparable e.g, bucket-handle, chronic radial tear)
- CHRONIC MENISCAL DEFICIENCY (POST-MENISCECTOMY)
- INTACT HORNS and PARTIAL DEFECT
  
- NORMAL LIMB ALIGNMENT
- NO ACL INSUFFICIENCY



IF PRESENT, ADDRESS IT WITH  
COMBINED PROCEDURE

International Orthopaedics (SICOT) (2014) 38:1945–1953  
DOI 10.1007/s00264-014-2408-9

REVIEW ARTICLE

## Clinical outcomes and complications of a collagen meniscus implant: a systematic review

Alberto Grassi · Stefano Zaffagnini ·  
Giulio Maria Marcheggiani Muccioli · Andrea Benzi ·  
Maurilio Marcacci



# MATERIAL AND METHODS

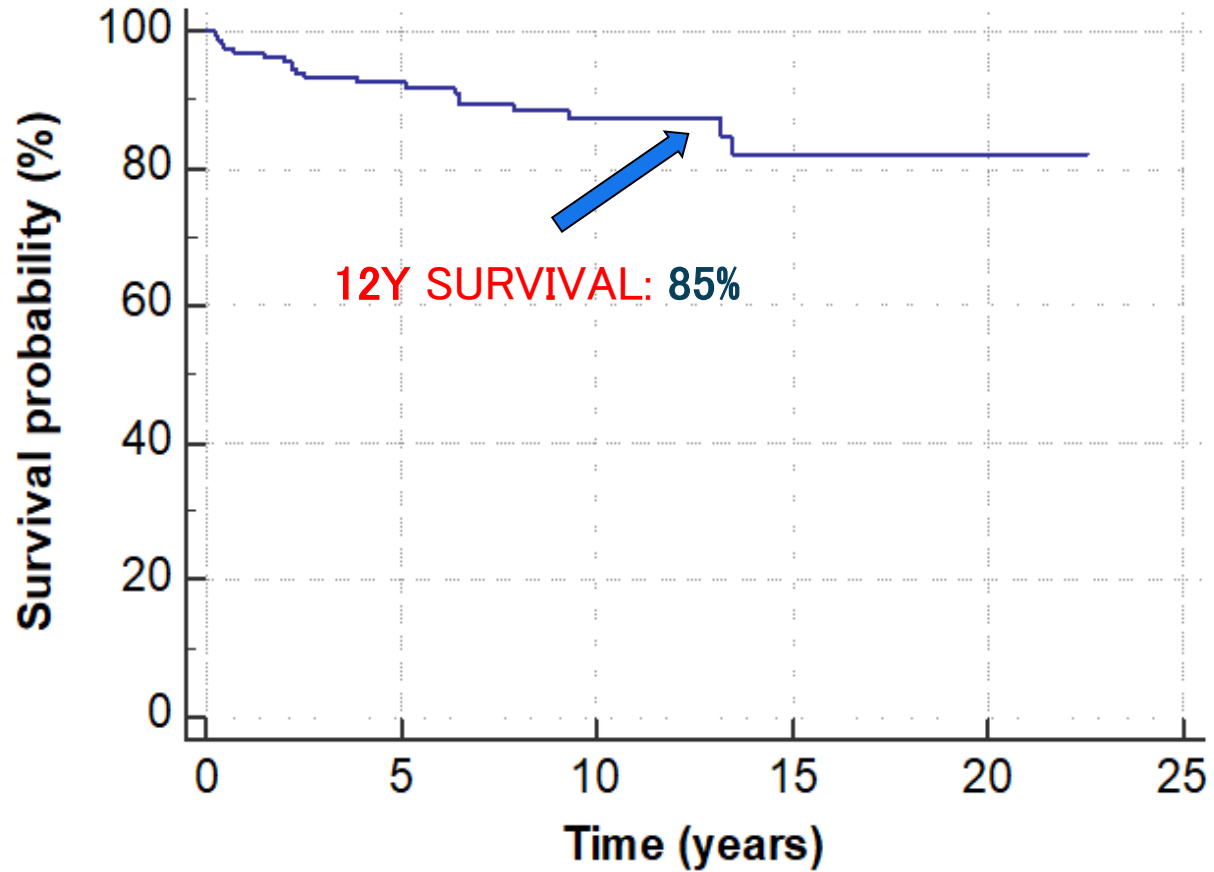
**92** PATIENTS WITH **11.8 YEARS** of **MEAN** FOLLOW-UP (MINIMUM 10 YEARS)

- MEAN AGE  $42.2 \pm 10.8$  YEARS -
- MEAN 9.5 YEARS FROM PREVIOUS MENISCECTOMY
- 76% MALES, 24% FEMALES
- 74% MEDIAL CMI . 26% LATERAL CMI
- 40% ISOLATE - 60% COMBINED PROCEDURES (25 ACL-REC/REV, 21 HTO/DFO, 24 CART. PROC.)



# RESULTS: SURGICAL FAILURE

Surgical Failure



**OVERALL SURVIVAL RATE (85%)**

**12 SURGICAL FAILURES (15%):**

- ✓ 1 CMI DISLOCATION
- ✓ 1 INFECTIONS
- ✓ 4 MAT
- ✓ 3 UKA
- ✓ 3 TKA

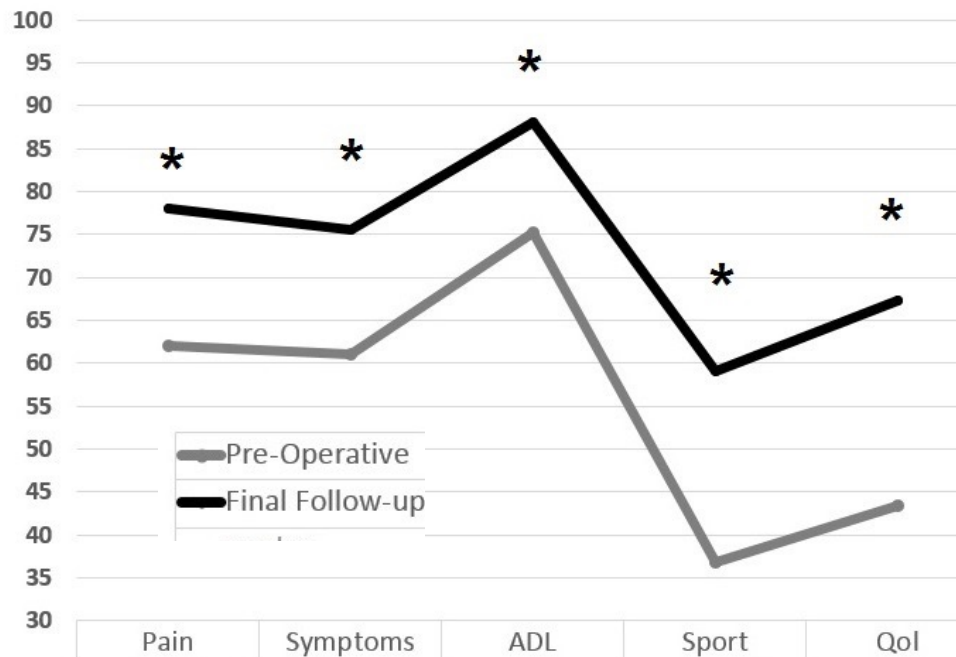


**13 OTHER REOPERATIONS (13%):**

- ✓ 7 HARDWARE REMOVAL
- ✓ 3 ACL-R
- ✓ 3 OTHER

# RESULTS

KOOS SUBSCALES AT PRE-OPERATIVE AND FOLLOW-UP

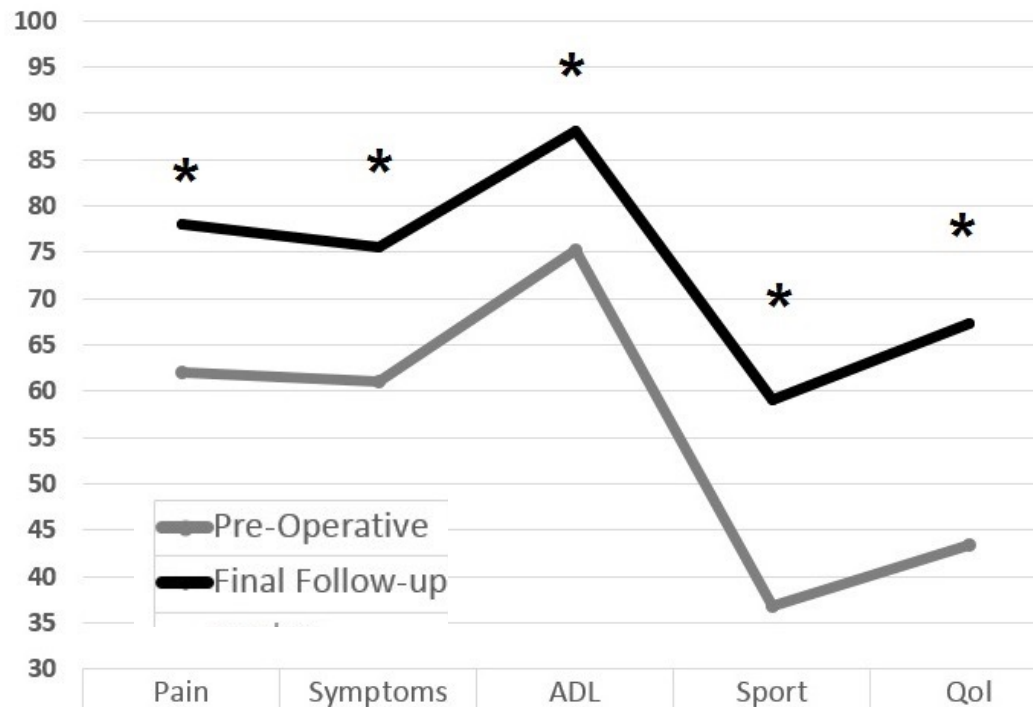


## AT 12 YEARS OF FINAL FOLLOW-UP:

- **VAS FOR PAIN** DECREASED BOTH AT **REST** and **DURING ACTIVITY** ( $p=0.0001$ )
- **KOOS SCORE** STILL IMPROVED IN **ALL THE SUBSCALES**

# RESULTS

KOOS SUBSCALES AT PRE-OPERATIVE AND FOLLOW-UP



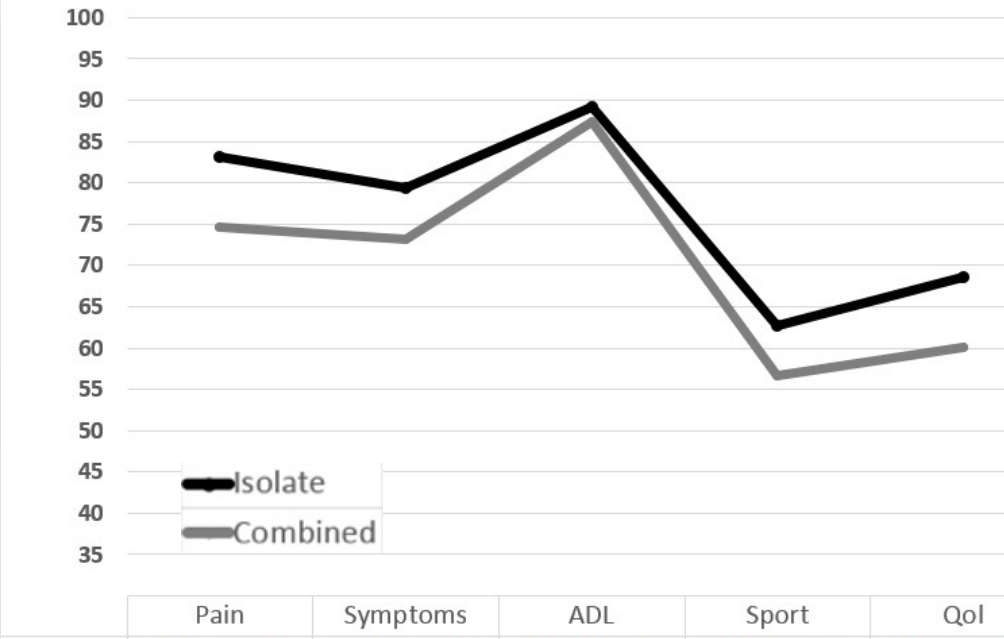
## AT 12 YEARS OF FINAL FOLLOW-UP:

- >75% PATIENTS ACHIEVED THE PASS FOR **KOOS PAIN, SPORT, ADL.**
- 60-65% ACHIEVED THE PASS FOR **KOOS QOL** and **SYMPTOMS.**



# RESULTS

KOOS SUBSCALE IN ISOLATE vs COMBINED CMI

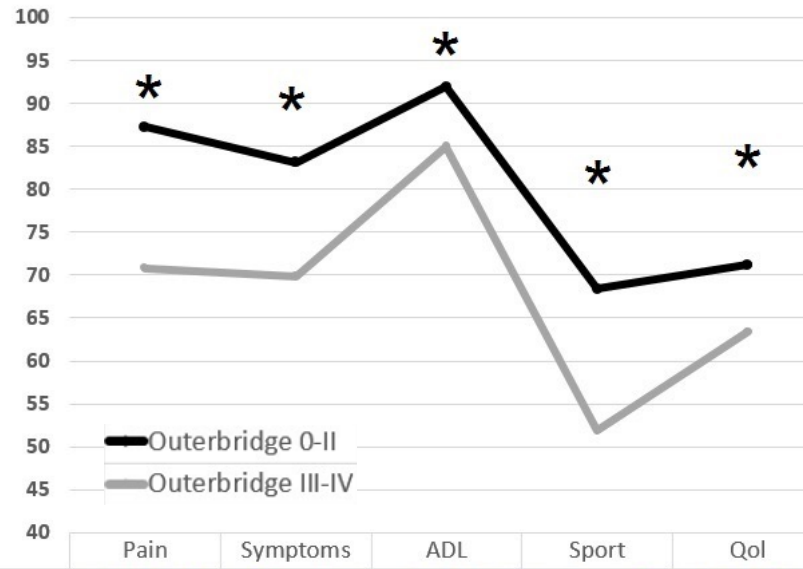


- NO DIFFERENCE BETWEEN “ISOLATE” AND “COMBINED” GROUP

- EFFECT OF CMI as A “STANDALONE” PROCEDURE

# RESULTS - PREDICTORS

KOOS SUBSCALES ACCORDING TO CARTILAGE STATUS



- **CHONDROPATY GRADE III-IV:**  
lower values in all KOOS subscales

- **TIME FROM MENISCECTOMY >5YEARS:**  
MORE PAIN and LOWER KOOS QOL

- **NO EFFECT OF AGE, SEX, MEDIAL/LATERAL**

# CONCLUSION

- ✓ **CMI PROVIDE SATISFACTORY LONG TERM (12 YEARS) RESULTS WITH SUBJECTIVE SCORES STILL HIGHER THAN PRE-OP**
- ✓ **CMI EFFECTIVE EITHER ISOLATED OR IN COMBINATION → IMPORTANT TREAT ALL THE KNEE PATHOLOGIES**
- ✓ **CARTILAGE STATUS NEGATIVELY INFLUENCES CLINICAL OUTCOMES**
- ✓ **>5 YEARS FROM MENISCECTOMY = MORE PAIN and LESS QUALITY OF LIFE... EARLIER INTERVENTION?**

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*Thank you*