

Subsequent meniscectomy after ACLR



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FRANCE

How To reduce complications and Reoperations ?

Archives of Orthopaedic and Trauma Surgery
<https://doi.org/10.1007/s00402-022-04522-1>

ARTHROSCOPY AND SPORTS MEDICINE

Unplanned return to the operating room after arthroscopic procedures: a need to consider 12 months after the initial surgery

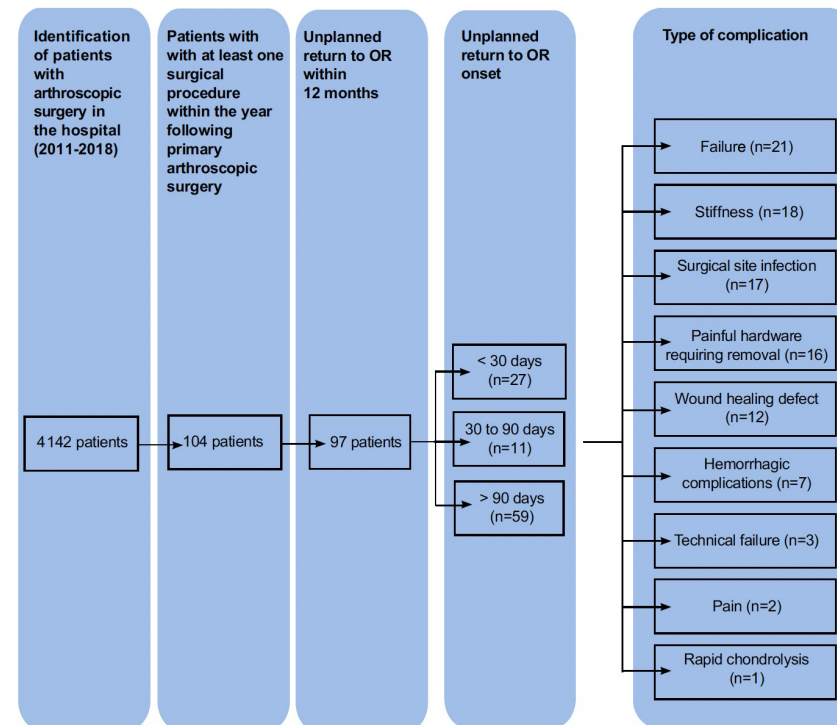
Victoria Teissier¹ · Nicolas Pujol¹ 

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Try to understand them!!

3%



Reasons for meniscus re-surgery after ACLR

1. Wrong indication

2. Technical errors

3. New injury

4. Natural evolution

5. Bad luck



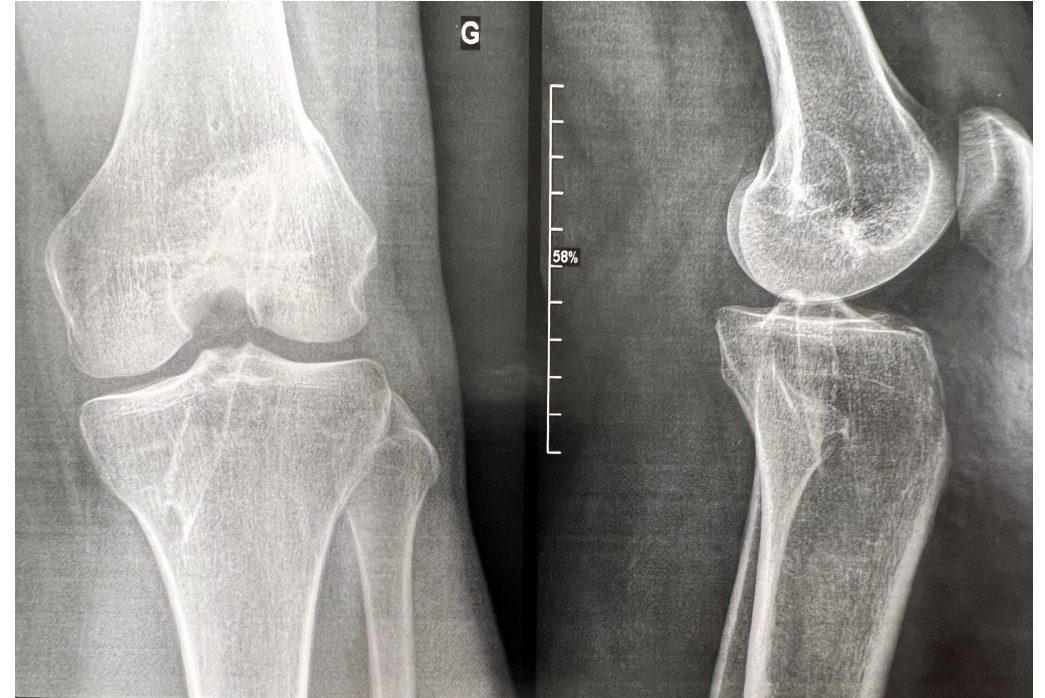
Surgeon

Patient / Surgery

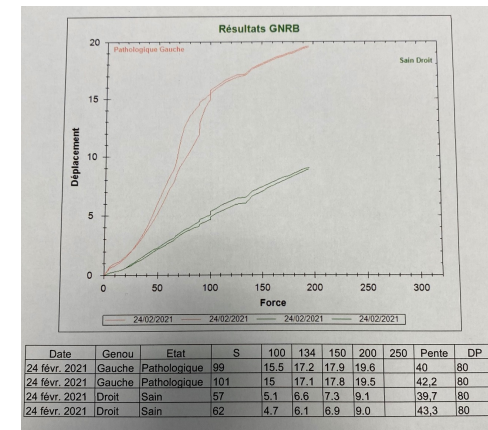
??

ADDRESS THE ACL+++++

- Unplanned return to OR
- After ACL R
- For a meniscus problem



- Is (more than often)
- Due to something wrong concerning the ACL Graft

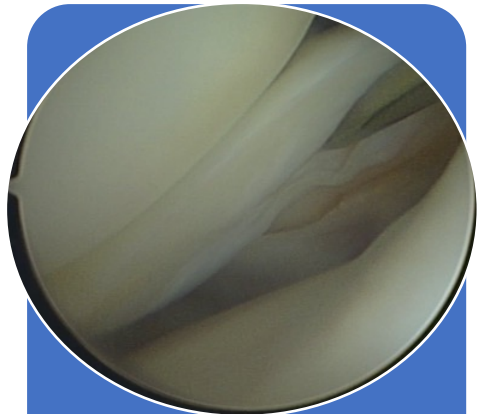


Different situations leading to a subsequent meniscectomy

Lot of meniscal tears/lesions treated during ACL reconstruction



REPAIR



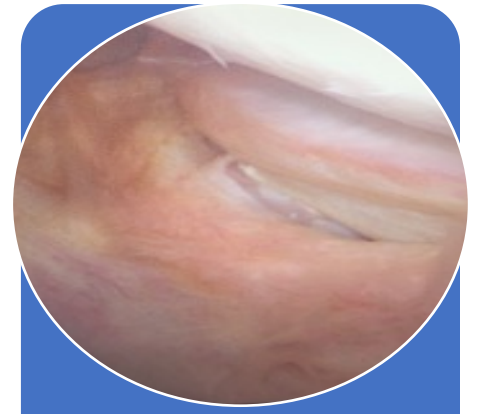
LET ALONE



MENISCECTOMY



NEW LESION



RAMP



After meniscus repair



REPAIR



Meniscectomy after meniscus repair=failure=15%

- Often Less resection
- No additional chondral damage

Amount of Meniscectomy Related to the Initial Tear⁴

	Posterior Segment	Medium and Posterior Segments	All Segments
Less (35% cases)	0	11	2
Equivalent (51.5% cases)	5	12	2
More (13.5% cases)	4	1	0

Amount of Meniscal Resection After Failed Meniscal Repair

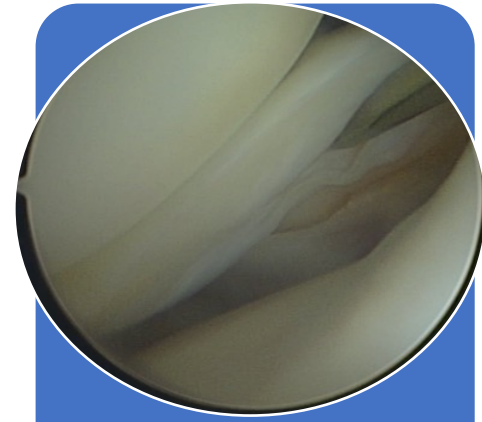
Nicolas Pujol,^{*†} MD, Olivier Barbier,[†] MD, Philippe Boisrenoult,[†] MD, and Philippe Beaufils,[†] MD

Investigation performed at the Orthopedic Department, Centre Hospitalier de Versailles, Versailles-Saint Quentin University, Le Chesnay, France

Mean reoperation: 3 years.

→ Partial failure !

After a meniscus lesion let alone: Any risk ??



LET ALONE

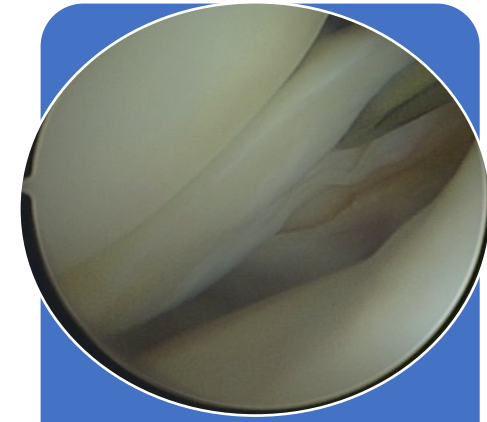
After a meniscus lesion let alone: Any risk ??

- Spontaneous healing possibility +++
- Up to 50 à 60% of cases

Ihara Clin Orthop 1994

Weiss J Bone Joint Surg Am 1989

Han KSRR 2015



LET ALONE

After a meniscus lesion let alone: Any risk ??

Knee Surg Sports Traumatol Arthrosc (2009) 17:396–401
DOI 10.1007/s00167-008-0711-y

KNEE

Healing results of meniscal tears left in situ during anterior cruciate ligament reconstruction: a review of clinical studies

Nicolas Pujol · Philippe Beaufils

FU 3y

MM 540 tears : 14,8% failures

LM 607 tears : 4,8% failures

The Fate of Meniscus Tears Left In Situ at the Time of Anterior Cruciate Ligament Reconstruction

AMJSM 2015

A 6-Year Follow-up Study From the MOON Cohort

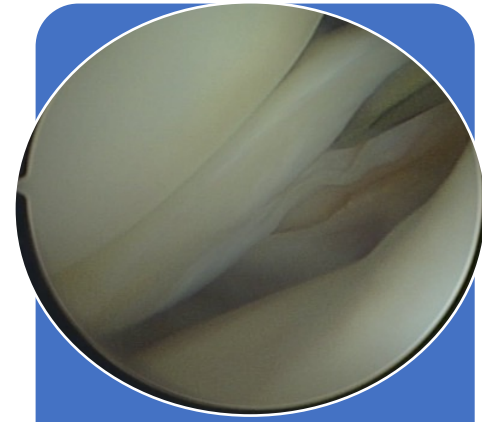
Kyle R. Duchman,* MD, Robert W. Westermann,* MD, Kurt P. Spindler,† MD, Emily K. Reinke,† PhD, Laura J. Huston,† MS, Annunziato Amendola,* MD, MOON Knee Group,‡ and Brian R. Wolf,*§ MD, MS

Investigation performed at University of Iowa Hospitals and Clinics, Iowa City, Iowa, USA

Recul de 6 ans

MM 71 tears : 5,6% failures

ML 137 tears : 2,3% failures



LET ALONE

Which tear? lateral meniscus?

- « small » tears < 1.5cm++

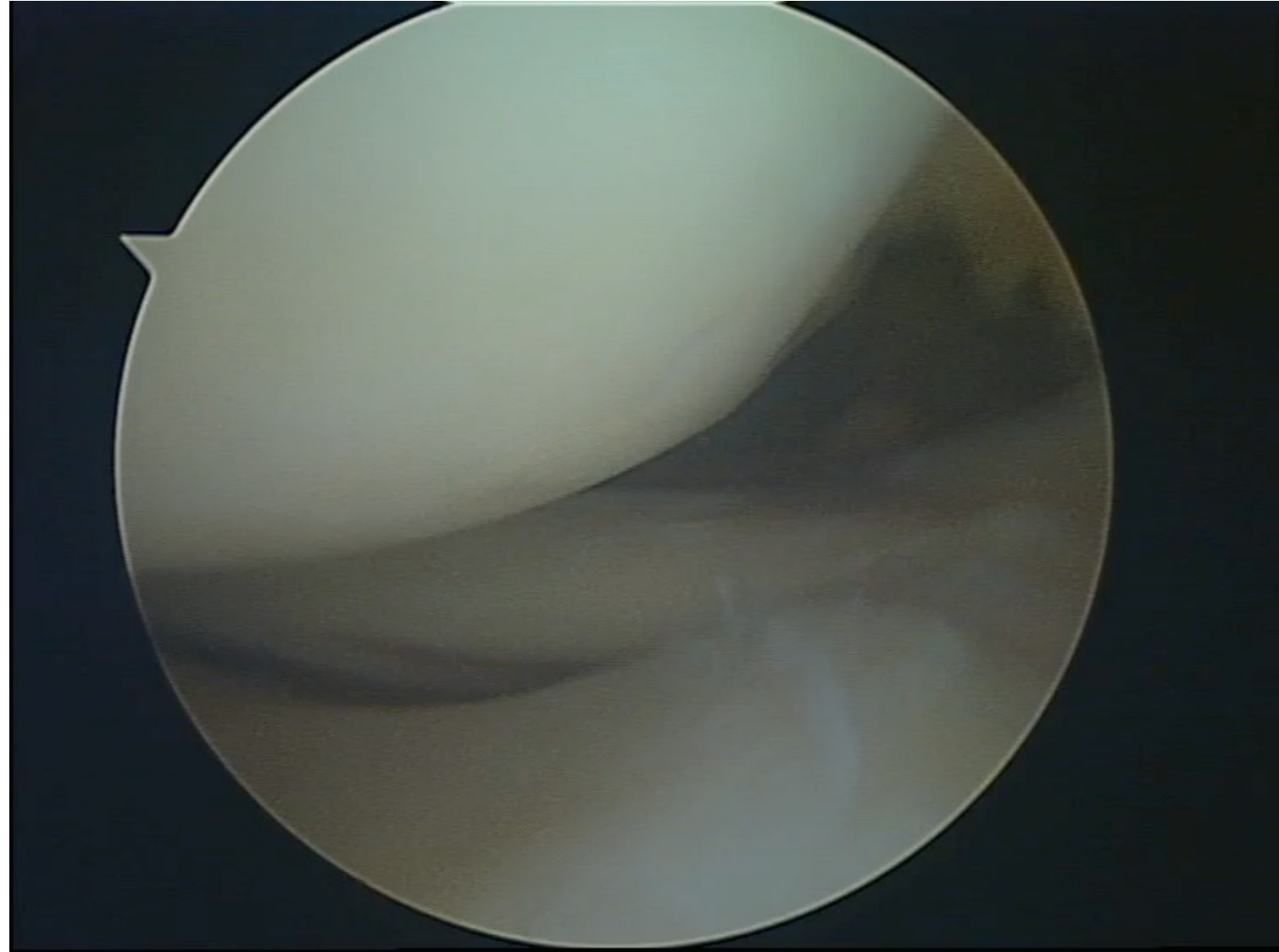
Systematic review

During ACL reconstruction, small asymptomatic meniscal lesions can be left untreated: a systematic review

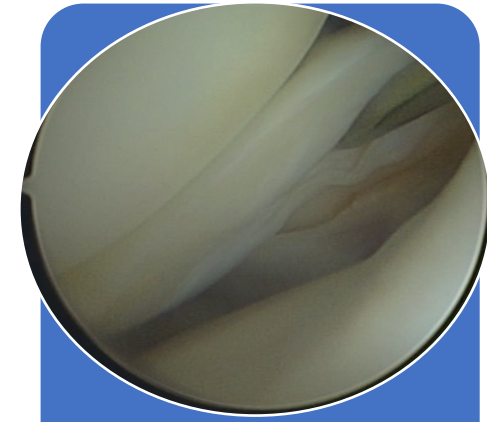
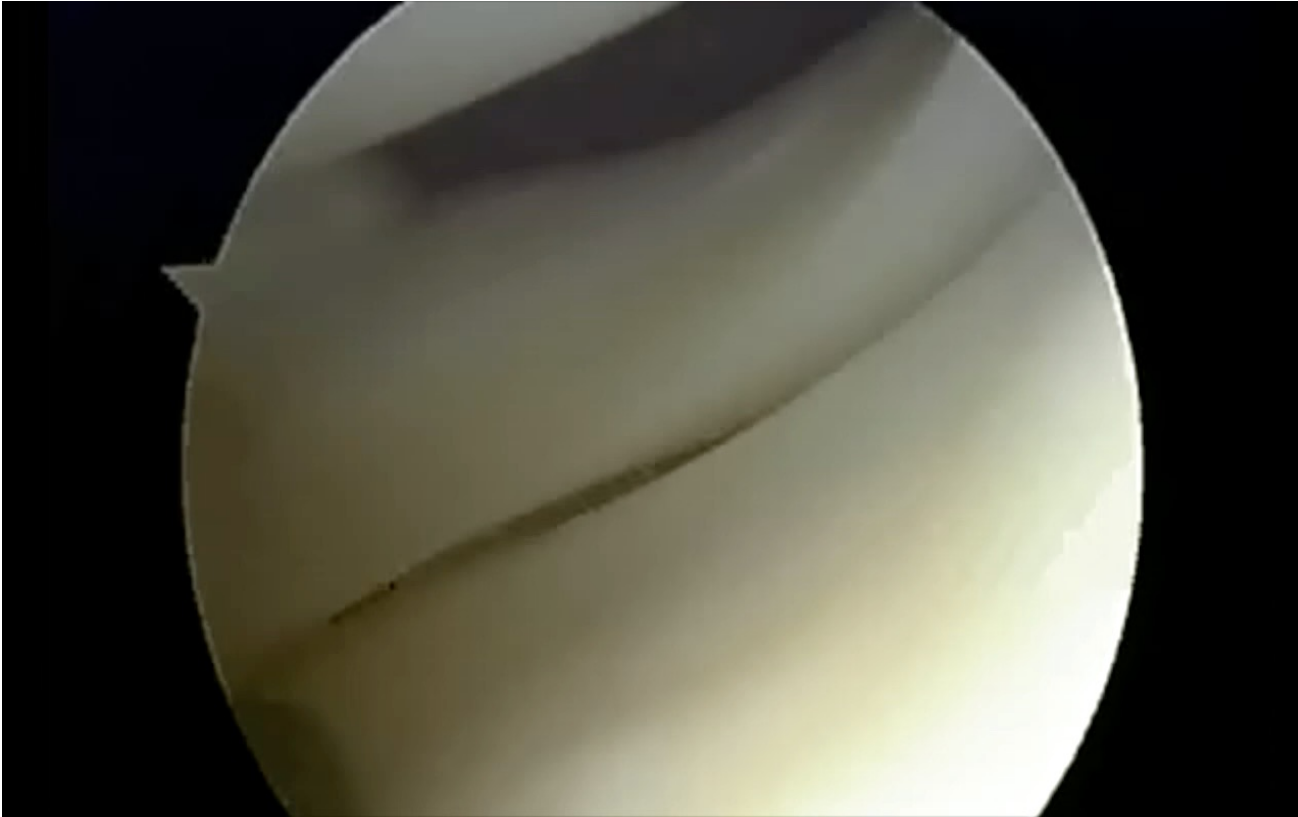
Pujol N, Beaufils P. *JISAKOS* 2016;0:1–6. doi:10.1136/jisakos-2016-000051 Copyright © 2016 ISAKOS

D. Shelbourne Am J Sports Med 2011

D. Lee Am J Sports Med 2014

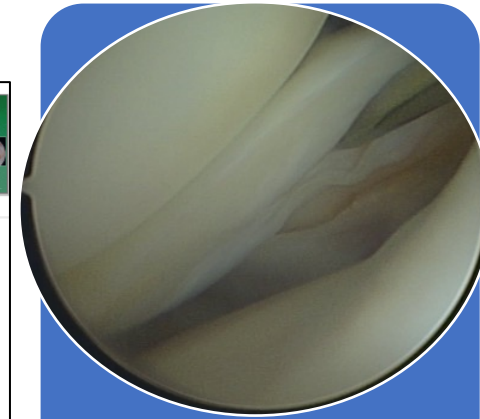


Meniscectomy on the lateral side ? ? ? During ACLR?



LET ALONE

Meniscectomy on the lateral side ? ? ? During ACLR?

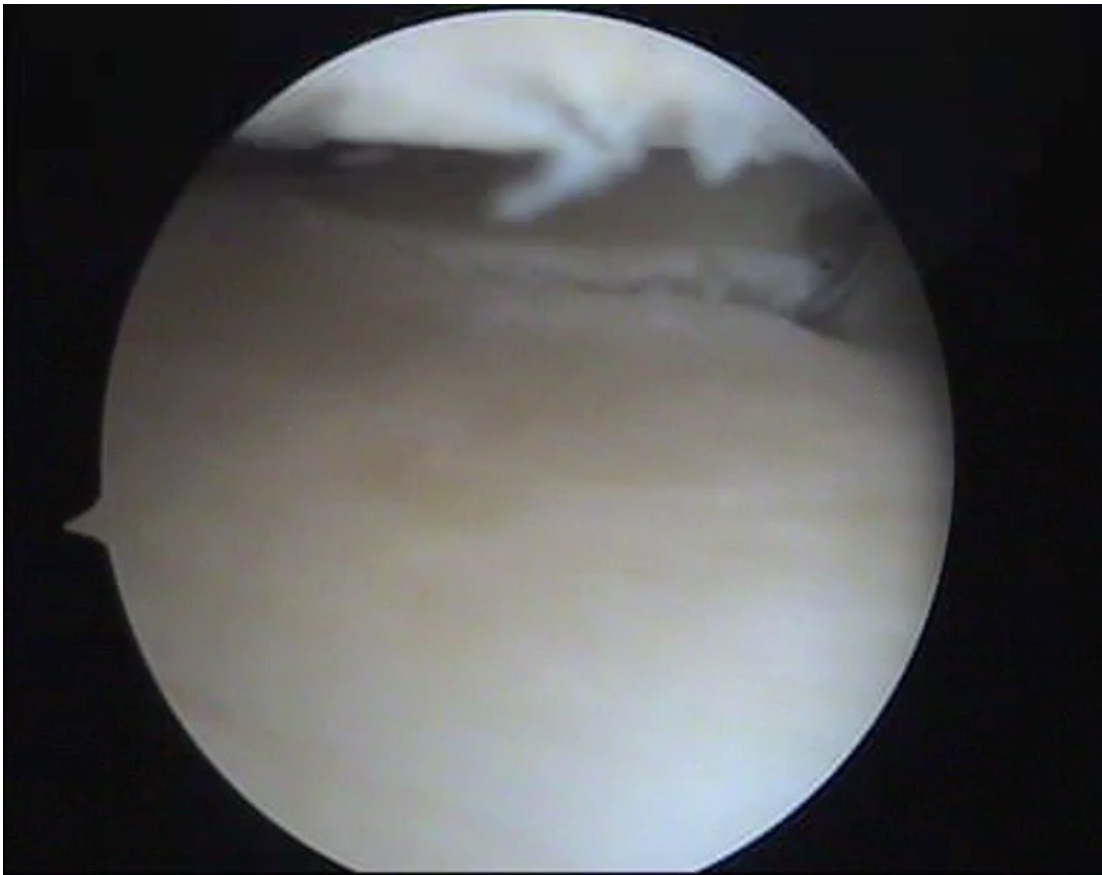


LET ALONE



Medial side?

Repair, even small tears ++++ : 0% failure vs 15% failure



Knee Surg Sports Traumatol Arthrosc (2009) 17:396–401
DOI 10.1007/s00167-008-0711-y

KNEE

Healing results of meniscal tears left in situ during anterior cruciate ligament reconstruction: a review of clinical studies

Nicolas Pujol · Philippe Beaufils

Meniscectomy... After meniscectomy ! ! !



MENISCECTOMY

Meniscectomy... After meniscectomy ??

Aseptic Revision and Reoperation Risks After Meniscectomy at the Time of Anterior Cruciate Ligament Reconstruction

Edmond P. Young,^{*,†} MD, Priscilla H. Chan,[‡] MS, Heather A. Prentice,[‡] PhD, MPH, Karun Amar,[†] MD, Andrew P. Hurvitz,[†] MD, and Najeeb A. Khan,[†] MD
Investigation performed at Kaiser Permanente, San Diego, California, USA



Cumulative Incidence and Association Between Meniscectomy Procedure at the Time of ACLR and Subsequent Aseptic Surgical Intervention^a

MENISCECTOMY

Event ^b	Lateral Meniscectomy				Medial Meniscectomy				Lateral and Medial Meniscectomy			
	Meniscectomy (n = 2581)	ACLR Alone (n = 7743)	HR (95% CI)	P Value	Meniscectomy (n = 1802)	ACLR Alone (n = 5406)	HR (95% CI)	P Value	Meniscectomy (n = 666)	ACLR Alone (n = 1998)	HR (95% CI)	P Value
Revision for ACL graft failure	92 (6.8)	330 (7.7)	0.80 (0.63-1.02)	.066	48 (4.6)	158 (4.9)	0.95 (0.70-1.29)	.731	23 (5.8)	59 (5.0)	1.25 (0.77-2.04)	.372
Lateral meniscectomy	22 (3.0)	32 (1.3)	1.89 (1.18-3.02)	.008	7 (1.2)	27 (1.4)	0.80 (0.35-1.83)	.602	4 (1.9)	5 (1.0)	1.46 (0.46-4.66)	.523
Lateral meniscal repair	5 (0.8)	8 (0.3)	1.46 (0.51-4.14)	.482	1 (0.1)	4 (0.1)	0.78 (0.09-6.61)	.817	0 (0.0)	3 (0.6)	—	—
Medial meniscectomy	18 (2.2)	56 (2.4)	1.00 (0.63-1.58)	.996	28 (4.8)	52 (3.0)	1.39 (0.86-2.26)	.181	8 (3.8)	23 (4.5)	0.81 (0.35-1.86)	.614
Medial meniscal repair	18 (2.6)	36 (1.4)	1.49 (0.88-2.52)	.135	5 (1.2)	18 (1.1)	0.71 (0.27-1.89)	.492	2 (0.6)	5 (0.7)	1.37 (0.19-9.75)	.754
Chondroplasty	8 (0.8)	32 (1.3)	0.67 (0.35-1.29)	.232	10 (1.7)	19 (1.1)	1.21 (0.61-2.39)	.591	2 (0.7)	8 (1.6)	0.92 (0.22-3.76)	.903
Irrigation and debridement	4 (0.3)	36 (1.3)	0.46 (0.19-1.10)	.082	5 (0.6)	21 (1.1)	0.65 (0.27-1.57)	.341	2 (0.4)	4 (0.5)	1.48 (0.35-6.33)	.595
Loose body removal	1 (0.1)	16 (0.8)	0.15 (0.02-1.04)	.055	4 (0.7)	15 (0.8)	0.71 (0.26-1.94)	.501	0 (0.0)	3 (0.4)	—	—
Manipulation under anesthesia	10 (1.3)	39 (1.2)	0.70 (0.34-1.42)	.319	1 (0.1)	21 (0.7)	0.13 (0.02-0.92)	.041	5 (2.5)	8 (0.8)	1.65 (0.49-5.58)	.418

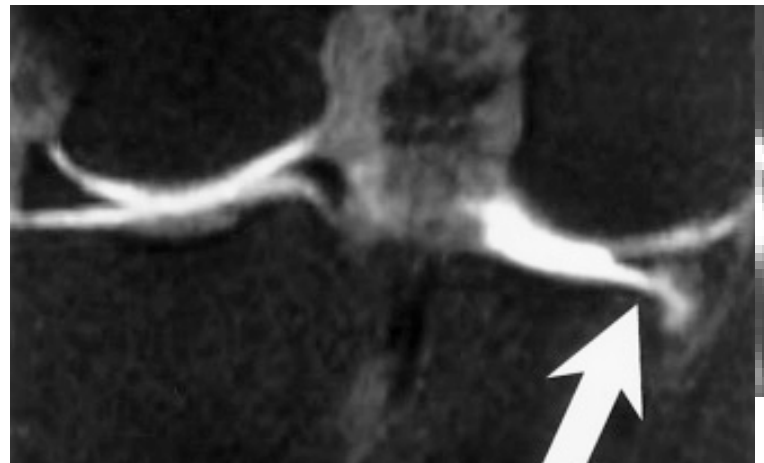
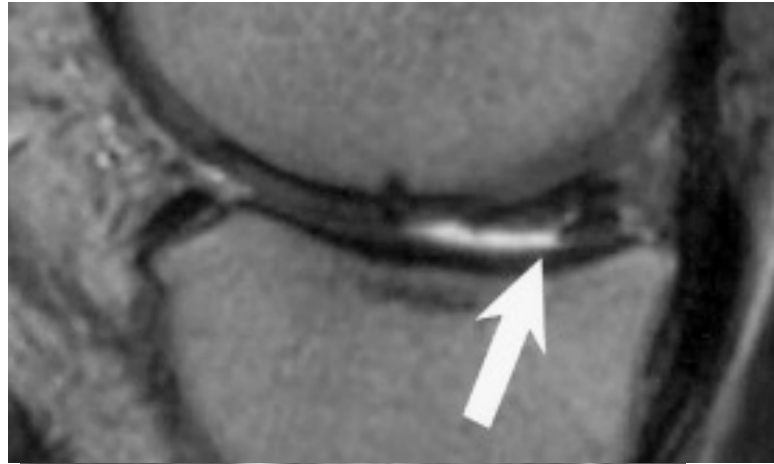
New tear Suspected

- Arthro CT +++

- *Mutschler C Radiology*
- *Se 90%*
- *Sp 90%*

- MRI

- *White L radiology*
- *Se 70%*
- *Sp 80%*



MENISCECTOMY

New lesion ?



NEW LESION

New lesion?



- ACL + BHT MM
- 16y
- Hurdler junior nat team
- BTB + MM repair
- Fine, back to sports and level



NEW LESION

New lesion ?



- 3 years later
- Fall during sports
- Effusion
- ACL OK
- Medial pain



NEW LESION

New lesion?

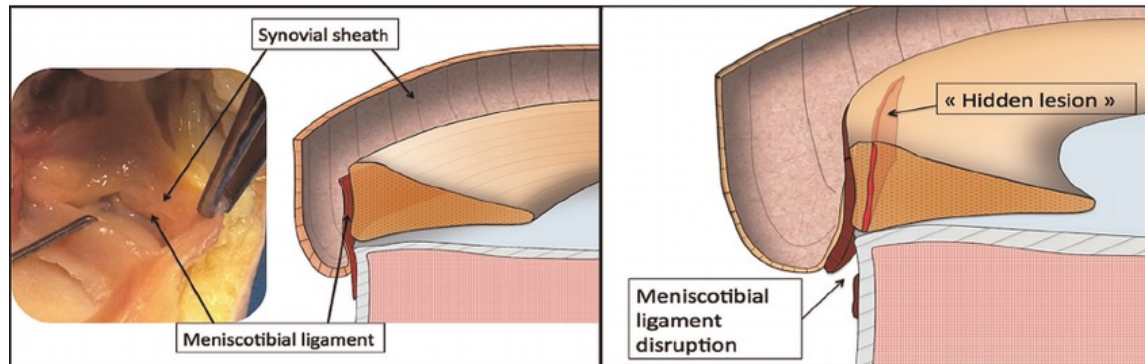


Stamp lesion



NEW LESION

After Ramp repair

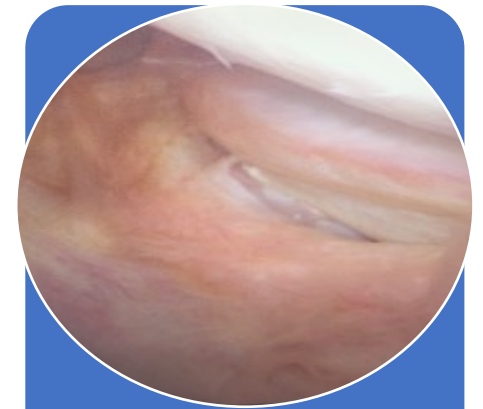


Epidemiological Evaluation of Meniscal Ramp Lesions in 3214 Anterior Cruciate Ligament-Injured Knees From the SANTI Study Group Database

A Risk Factor Analysis and Study of Secondary Meniscectomy Rates Following 769 Ramp Repairs

Bertrand Sonnery-Cottet,^{*†} MD, Cesar Praz,[†] MD, Nikolaus Rosenstiel,[†] MD, William G. Blakeney,[†] MBBS, MSc, MS, FRACS, Herve Ouanezar,[†] MD, Vikram Kandhari,[†] MS, DNB, Thais Dutra Vieira,[†] MD, and Adnan Saithna,^{†§} MBChB, DipSEM, MSc, FRCS (T&O)
Investigation performed at Centre Orthopédique Santy, FIFA Medical Centre of Excellence, Groupe Ramsay-Générale de Santé, Hôpital Privé Jean Mermoz, Lyon, France

Failure → 10.8% at 45 months
How to improve the results?

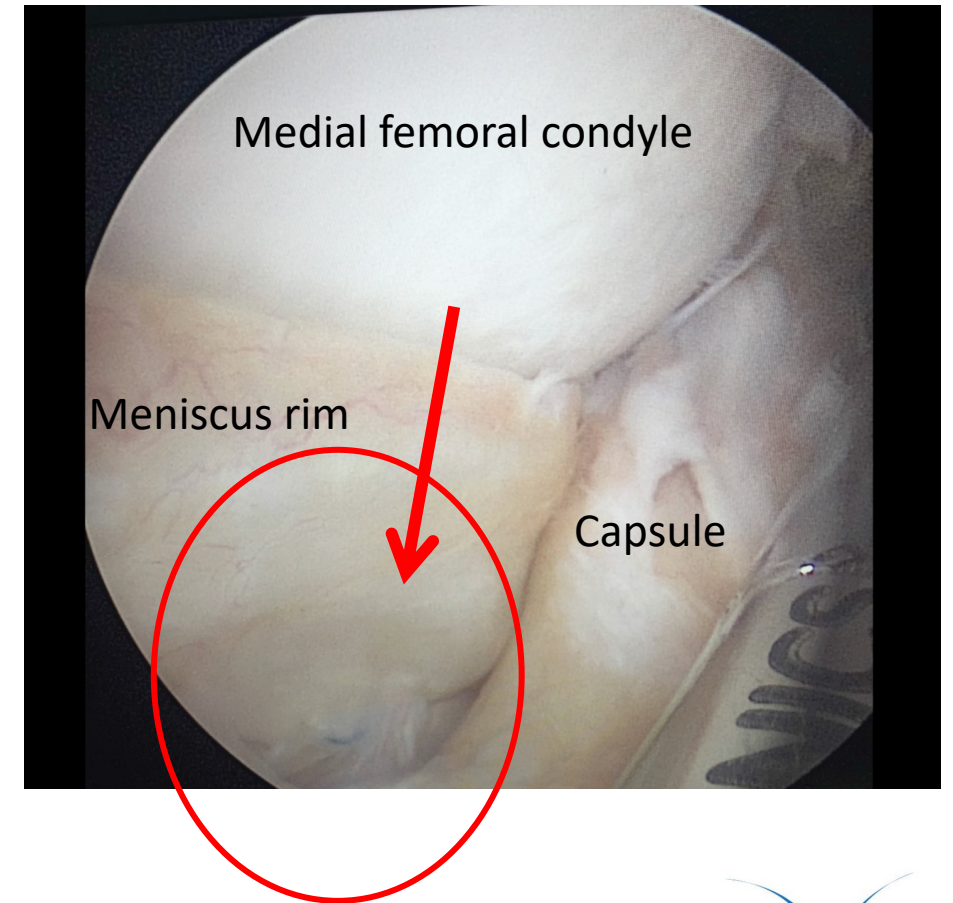
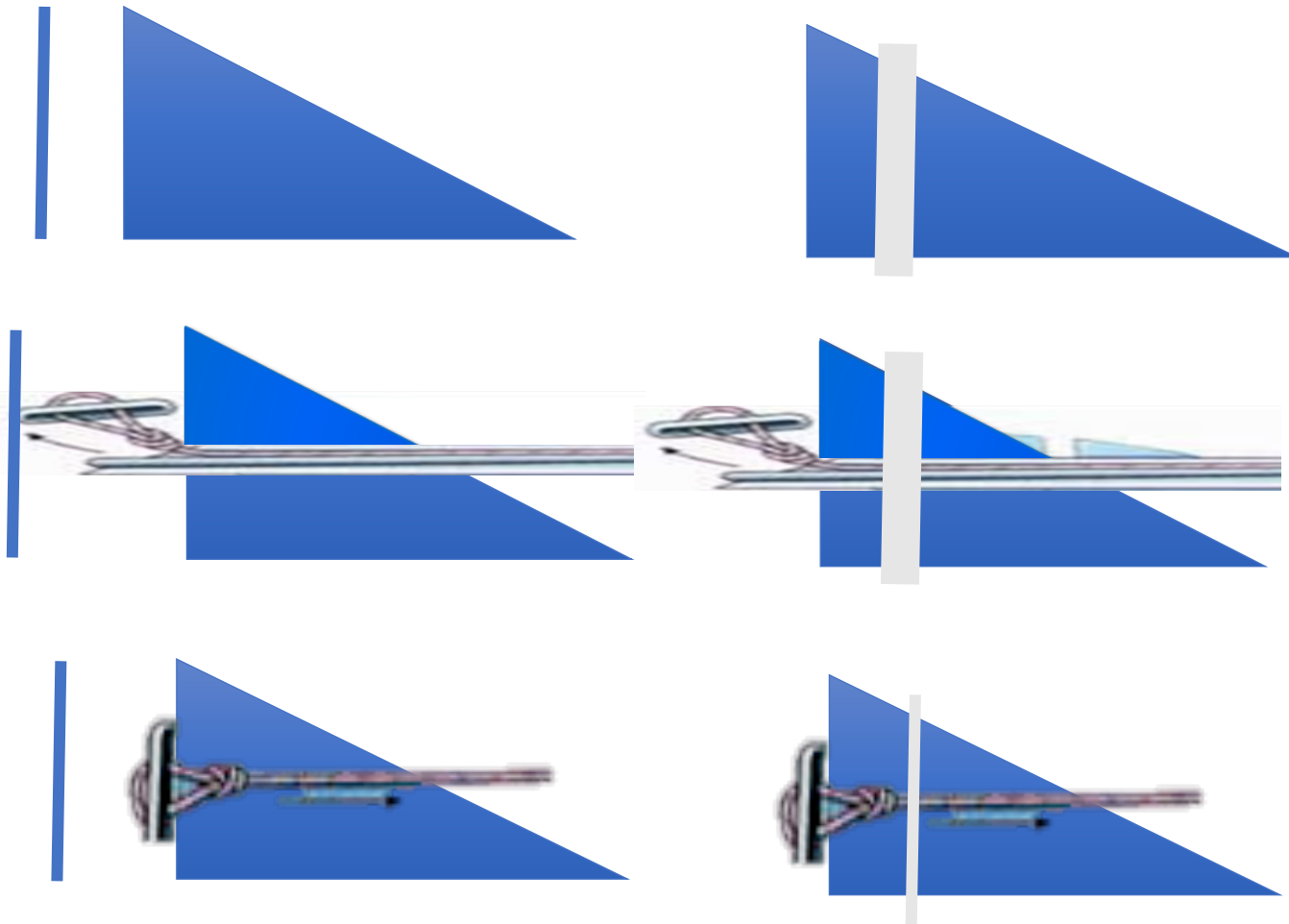


RAMP

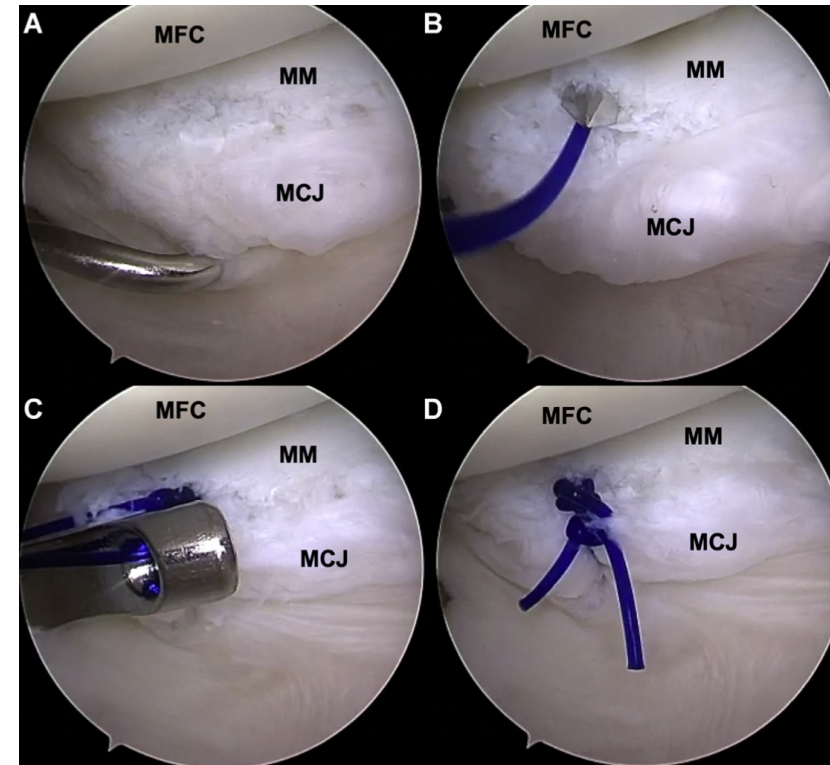
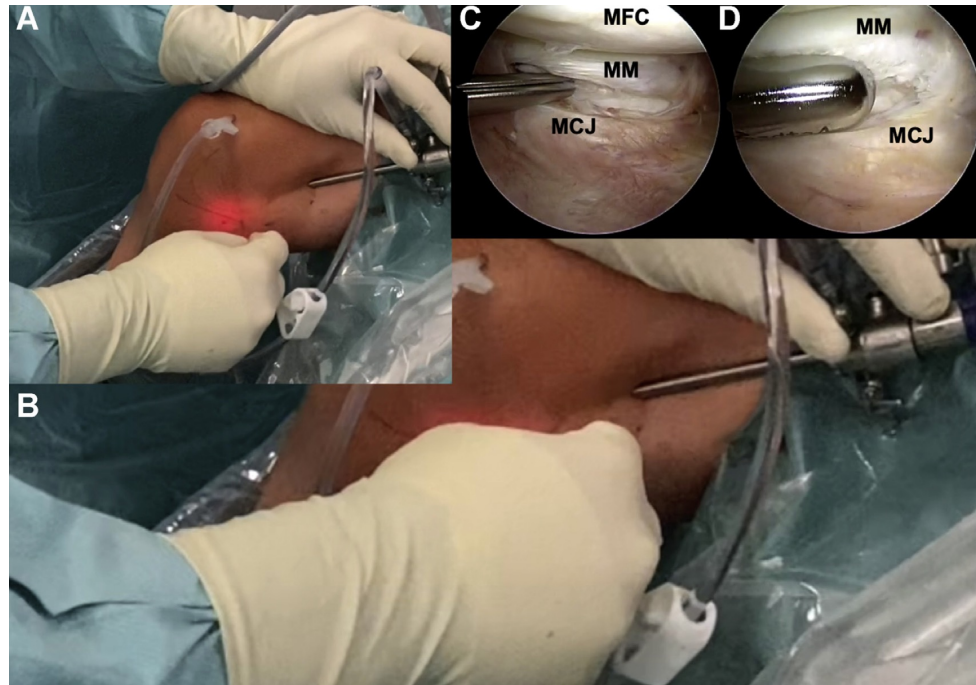
Repair Ramp lesions Only with classic implants?

Ramp lesion

Classic lesion



Double posteromedial portals



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Orthopaedics & Traumatology: Surgery & Research

ELSEVIER journal homepage: www.elsevier.com

Original article

Ramp lesion repair via dual posteromedial arthroscopic portals: A cadaveric feasibility study

Cécile Toanen*, Matthieu Sanchez, Philippe Beaufile, Nicolas Pujol

Service de chirurgie orthopédique et traumatologique, Centre Hospitalier de Versailles, 177, rue de Versailles, 78150 Le Chesnay, France

Technical Note

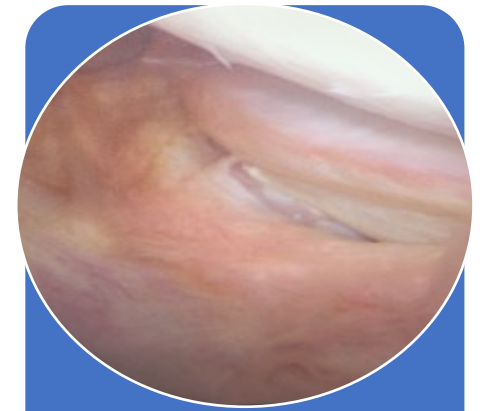
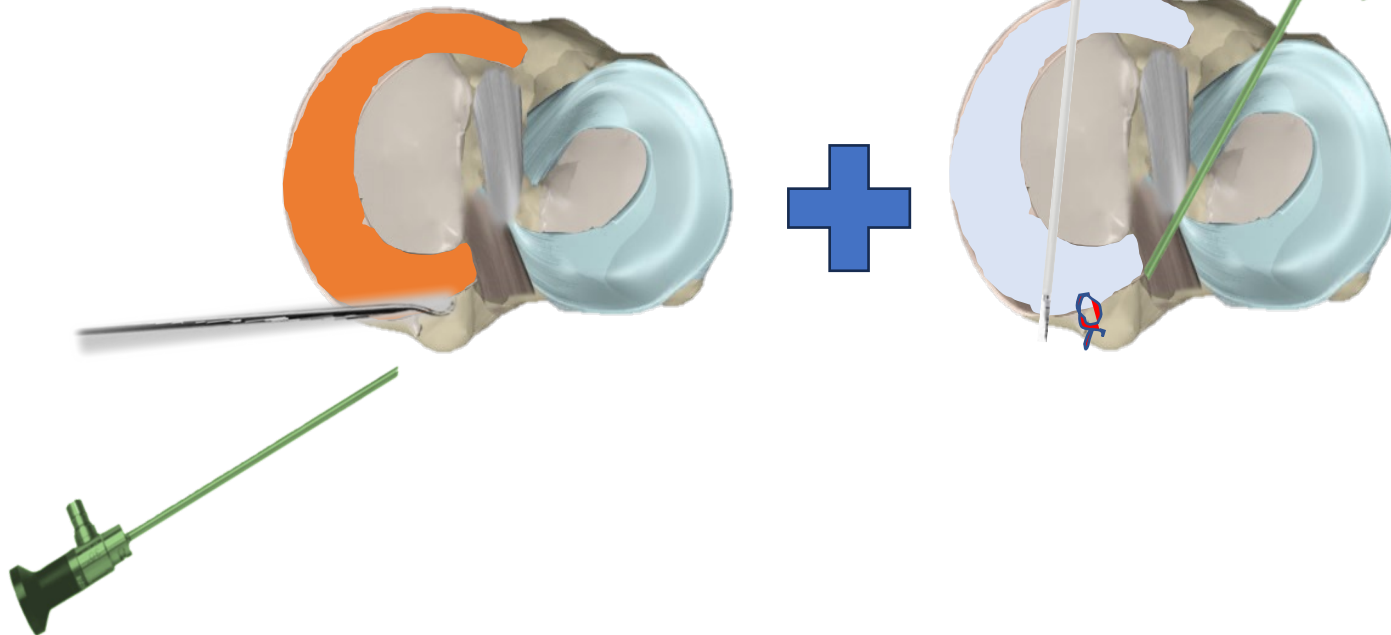
Meniscal Ramp Repair: A 2-Portal Posteromedial Approach

Renaud Siboni, M.D., Charles Pioger, M.D., Christophe Jacquet, M.D.,
Caroline Mouton, Ph.D., Julie Seil, Cécile Toanen, M.D., and Romain Seil, M.D., Ph.D.



Technical aspects

- Use hooks
- PDS sutures
- Combined techniques



RAMP

Conclusion

- **Different lesions/cases**
- **Some reinjuries/reoperations after meniscus treatment**
- **Treat accordingly**

