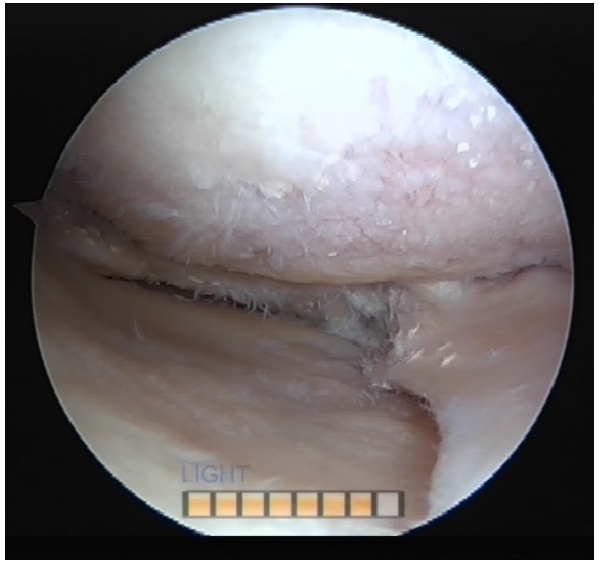
VARUS ARTHROSCOPIC DEBRIDEMENT

F-X GUNEPIN

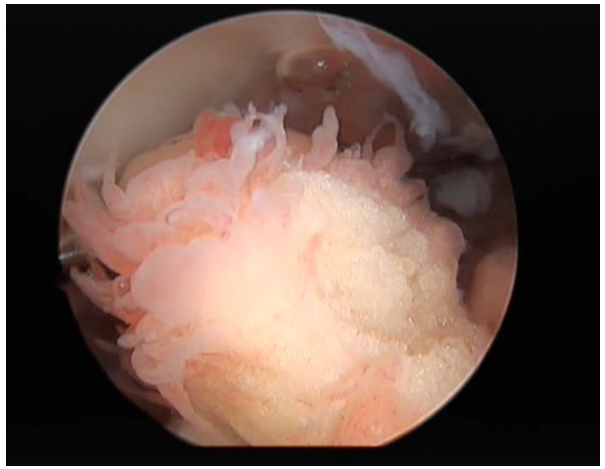


« Is there a » Place for arthroscopic debridement Indication, Limits, Results

Arthroscopic surgery for OA

- Largely used until the 2000s
- Lavage alone
  - Like irrigation
  - Reduces inflammation proteins (Cytokines)
- Lavage *plus:*
  - Cartilage
    - Debridement
    - Microfracture (focal defect)
  - Meniscus
    - Regularisation
  - Synovectomy

- Literature very controversial
  - Sometimes similar to medical treatment



2000 SFA Symposium
Multicentric & Retrospective

- Tibio femoral arthrosis treated arthroscopically

- Inclusion criteria
  - 25% reduced joint line on AP shuss X-ray

- Exclusion criteriae
  - Necrosis
  - Isolated FP arthritis
  - Inflamatory arthritis

257 cases

Courtesy F Kelberine

Global Results

- 25 months FU

- Lequesne's score = + 25%
  - Preop 12,5 ± 3,3 Postop 9,5 ± 3,5 p<0,0001
    - Pain at night p=0,005
    - Pain first steps p=0,009
    - Pain at walk p=0,04
    - Walking range, stairs p<0,0001
    - Bending p=0,003
    - Irregular ground p=0,004

- 70% patients satisfied
- 19,4% re-op (50 cases) : within 2 y for 70%

Courtesy F Kelberine

Arthroscopic surgery for degenerative **knee**: systematic review and meta-analysis of benefits and harms.

Thorlund JB, Juhl CB, Roos EM, Lohmander LS.

BMJ. 2015 Jun 16;350:h2747. doi: 10.1136/bmj.h2747.

In conclusion: data that does not favor arthroscopic surgery in cases of chronic knee pain resistant to medical treatment This meta-analysis is the first of its kind to combine the analysis of the benefits and risks of arthroscopic knee surgery by comparing it to other treatments and by performing analyzes by subgroups (pronounced radiographic signs, physical condition, intensity of initial pain, type of intervention, etc.). The results show that the clinical benefit of this intervention is moderate in the short term, lower than that obtained with physical exercise and not detectable in the long term. In addition, this technique, like any surgical intervention, exposes to thromboembolic and infectious risks. It also risks worsening osteoarthritis in the long term.

AAOS
American Academy of Orthopaedic Surgeons

2021

Management of Osteoarthritis of the Knee (Non-Arthroplasty)

Evidence-Based Clinical Practice Guideline

Lavage/Debridement

Arthroscopy with lavage and/or debridement in patients with a primary diagnosis of knee osteoarthritis is not recommended.

Strength of Recommendation: Moderate ★★★☆

Description: Evidence from two or more "Moderate" quality studies with consistent findings, or evidence from a single "High" quality study for recommending for or against the intervention. Also requires no or only minor concerns addressed in the EtD framework.

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Management of Osteoarthritis of the Knee (Non-Arthroplasty)

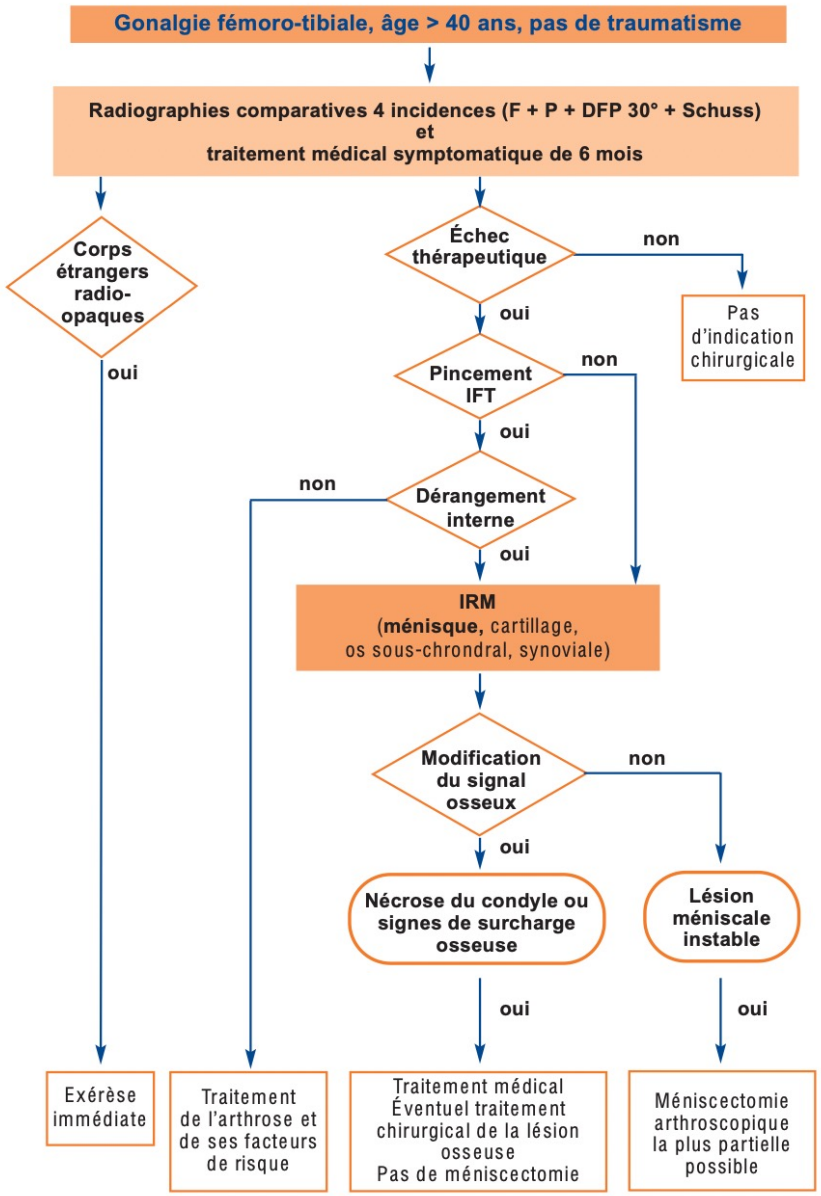
Evidence-Based Clinical Practice Guideline

Partial Meniscectomy

Arthroscopic partial meniscectomy can be used for the treatment of meniscal tears in patients with concomitant mild to moderate osteoarthritis who have failed physical therapy or other nonsurgical treatments.

Strength of Recommendation: Moderate ★★★☆

Evidence from two or more "Moderate" quality studies with consistent findings, or evidence from a single "High" quality study for recommending for or against the intervention. Also requires no or only minor concerns addressed in the EtD framework.



medial knee pain after 40 years ➔ Think of a degenerative pathology

1. X-Ray first
2. Then medical treatment
3. Poor result then MRI
4. Artrhscopy if instable meniscus lesion

Only Meniscectomy?

ELSEVIER

Revue de Chirurgie Orthopédique et Traumatologique

Volume 107, Issue 8, Supplement, December 2021, Page S290

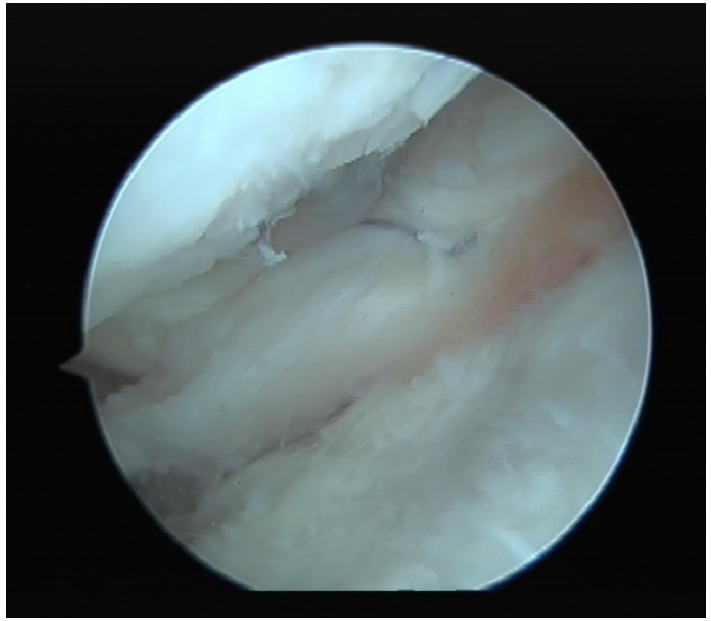
58

La suture méniscale du ménisque dégénératif peut-elle être considérée comme une alternative thérapeutique fiable ? Résultats cliniques et IRM d'une étude pilote à 12 mois de recul

Repair of degenerative meniscal lesion: Preliminary results at 12 months

Maxime Schwach [1], Sylvain Grange [2], Frederic Farizon [1], Remi Philippot [1], Thomas Neri [1 3]

Suturing the symptomatic degenerative meniscus, failing medical treatment, can be considered as a therapeutic alternative. This could be a wait-and-see treatment in this hyperconstraint pathology where meniscal preservation is decisive.



OTHERS GO FURTHER

Arthroscopy: The Journal of Arthroscopic & Related Surgery
Volume 20, Issue 4, April 2004, Pages 373-378

Radial tears of the posterior horn of the medial meniscus

Seong-Il Bin M.D. [a], Jong-Min Kim M.D. [a], Seung-Jun Shin M.D. [a]

Elder patient
Brutal pain
Modest Trauma

Br J Sports Med. 2018 Jul;52(13):872-876. doi: 10.1136/bjsports-2017-098942. Epub 2018 Mar 24.

Meniscal root tears: a silent epidemic

Mark E Cinque [1], Jorge Chahla [1], Gilbert Moatshe [1 2 3], Scott C Faucett [4], Aaron J Krych [5], Robert F LaPrade [1 6]

Affiliations + expand

PMID: 29574455 DOI: 10.1136/bjsports-2017-098942

Elder ? (48 -72)

Arch Orthop Trauma Surg
DOI 10.1007/s00402-015-2269-8

ARTHROSCOPY AND SPORTS MEDICINE

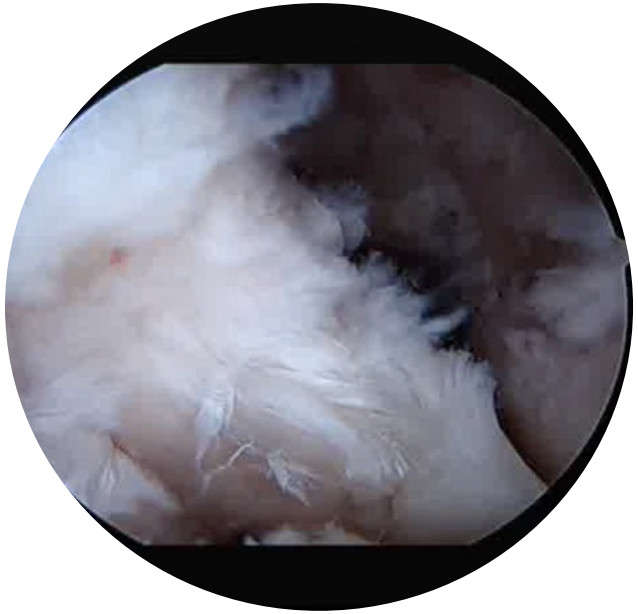
Comparison between conservative treatment and arthroscopic pull-out repair of the medial meniscus root tear and analysis of prognostic factors for the determination of repair indication

Jin Hwan Ahn[1] · Hwa Jae Jeong[1] · Yong Seuk Lee[2] · Jai Hyung Park[1] · Jae Wook Lee[1] · Jong-Hyon Park[1] · Taeg Su Ko[3]

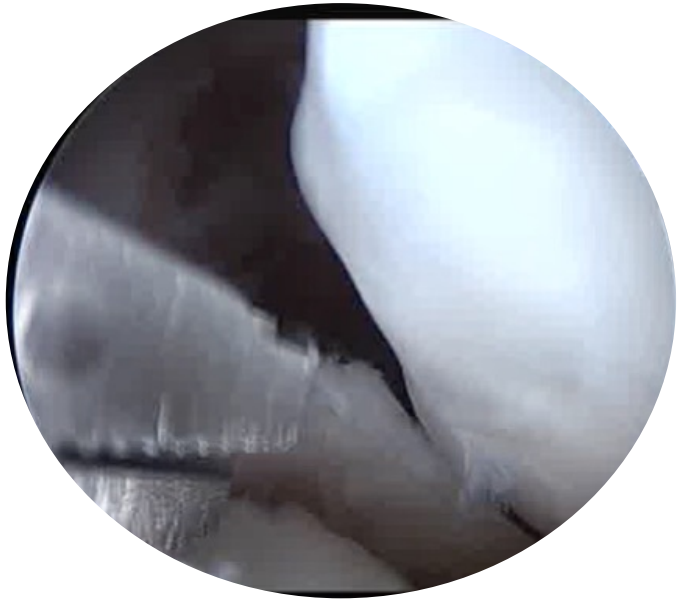
Table 1 Demographic and clinical characteristics of the patients

	MMRT pull-out repair group	Conservative treatment group	*p* Value
Demographic characteristics			
Female sex, no. (%)	24 (96 %)	10 (70 %)	0.107[a]
Age (years)	56 (8.0)	62 (10.5)	0.010[b]
Body mass index (kg/m^2)	25.11 (3.78)	26.37 (4.01)	0.403
Kellgren-Lawrence grade-I or II/III or IV	11/14	6/7	1.000[a]
MA angle (°)	4.62 (5.35)	3.44 (4.54)	0.689
Tibia vara angle (°)	3.53 (2.21)	2.84 (1.46)	0.061
Tibial slope angle (°)	8.69 (2.95)	9.21 (3.98)	0.508
Cartilage status-I or II/III or IV	16/9	4/9	0.087[a]
Subchondral edema present, no. (%)	18 (72 %)	12 (92.3 %)	0.222[a]
Medial meniscus extrusion (mm)	3.14 (1.56)	3.65 (1.74)	0.056
Clinical characteristics			
Preoperative IKDC subjective score	40.22 (22.19)	44.21 (18.97)	0.171
Preoperative Tegner and Lysholm activity scale	61.00 (23.00)	49 (42.00)	0.380
Follow-up (months)	17.43 (7.83)	18.40 (6.31)	0.538

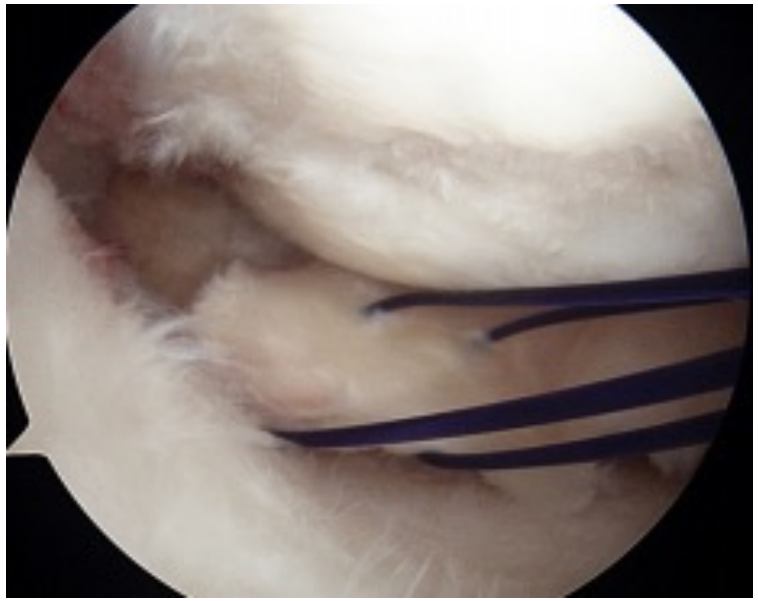
The MMRT pull-out repair group had better clinical results than the conservative treatment group.

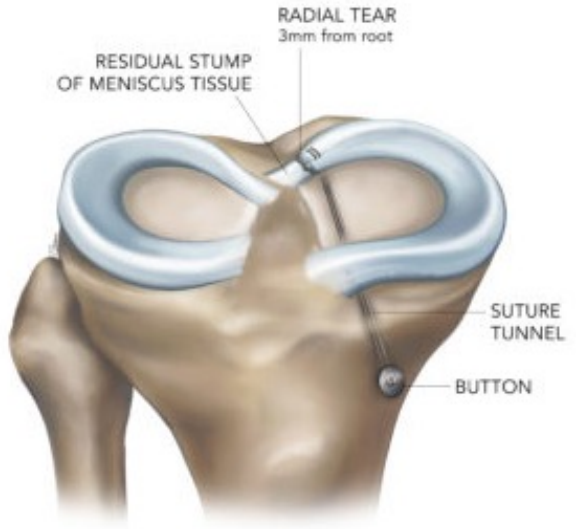


TECHNIQUE



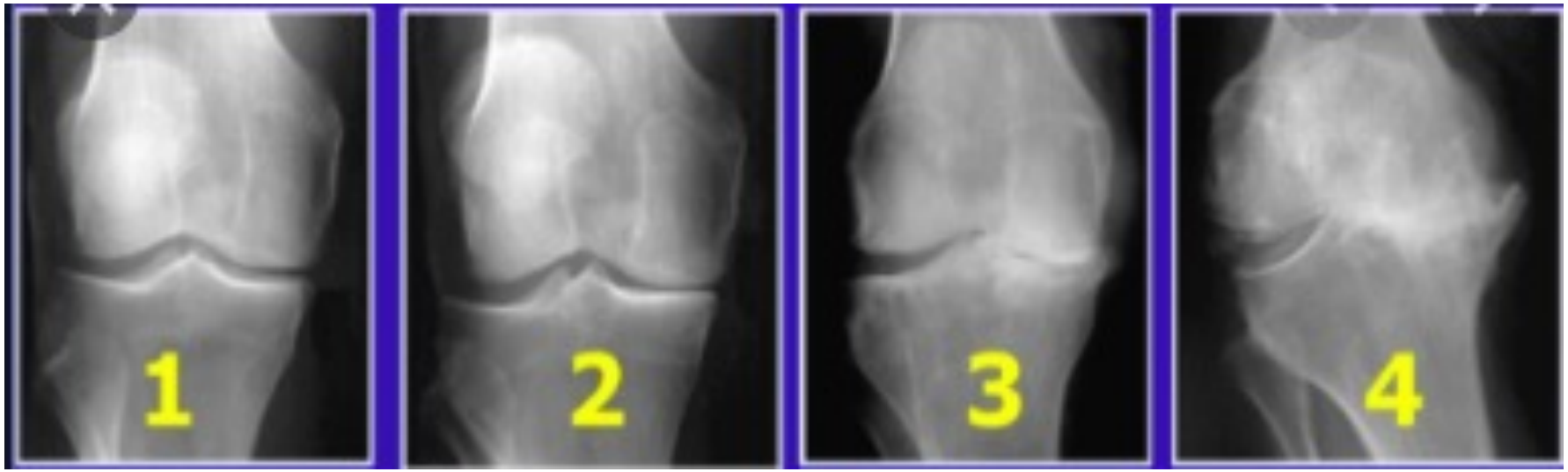
Automatic gripper
absorbable suture
Root type viewfinder
Endobutton or screw
Discharge 6 weeks





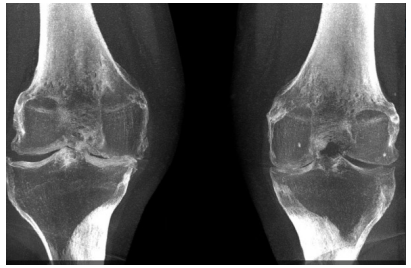
STRATEGIE:

FIRST HAVE A CLEAR IDEA OF THE INTERNAL COMPARTMENT



IMPORTANCE OF WEIGHT BEARING X-RAYS

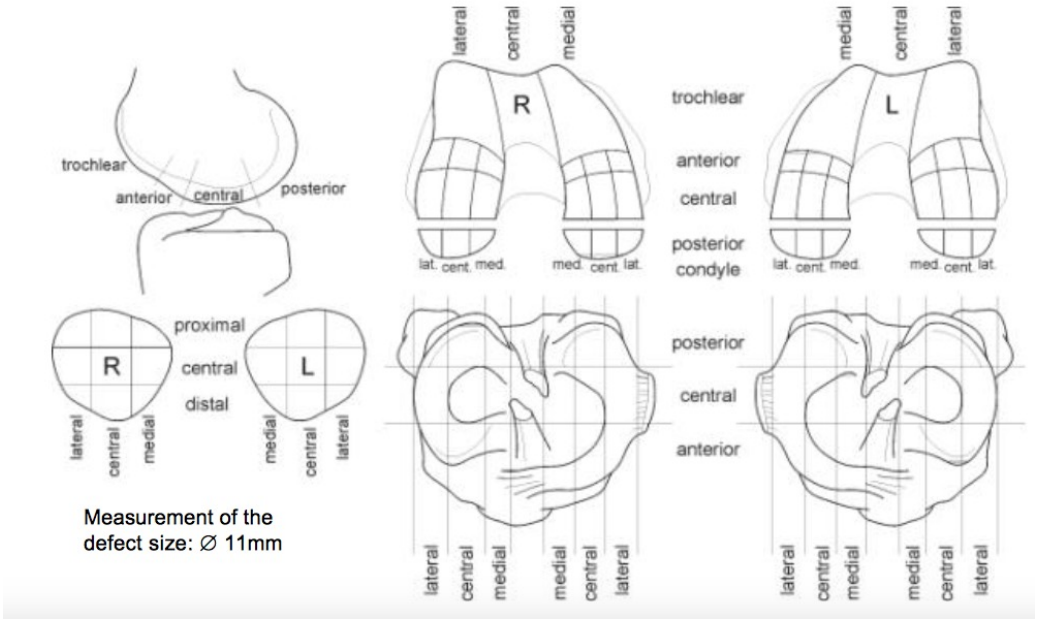
- Ahlbäck:
- 1 & 2 conservative treatment
- 3 & 4 prosthetic surgery

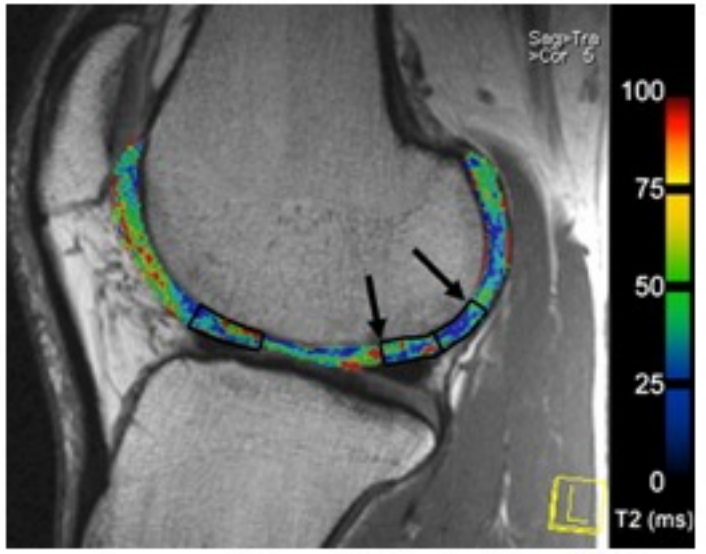


➔Cone Beam CT 3 x more than an X-Ray

SOMETIMES WE HAVE TO GO FURTHER, PARTICULARLY WITH OUR YOUNGEST PATIENTS

- MRI➔ T2Mapping



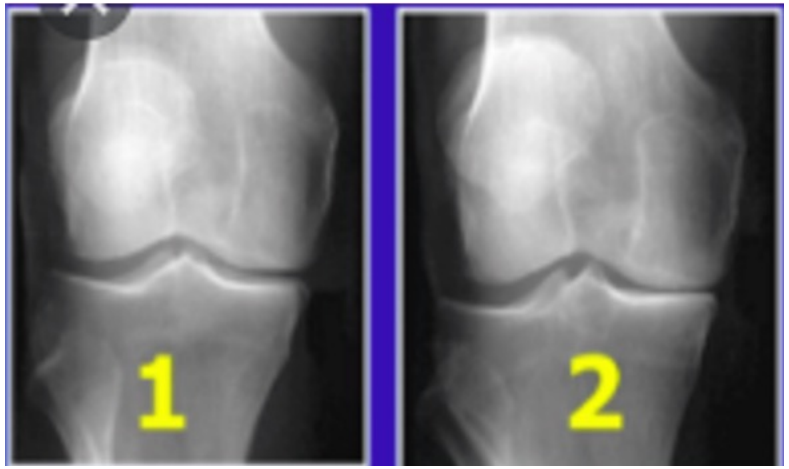


Domayer Osteoarthritis Cartilage 2008

Define cartilaginous lesions
location, Surface, Depth

- First medical treatment and stopping sports in charge

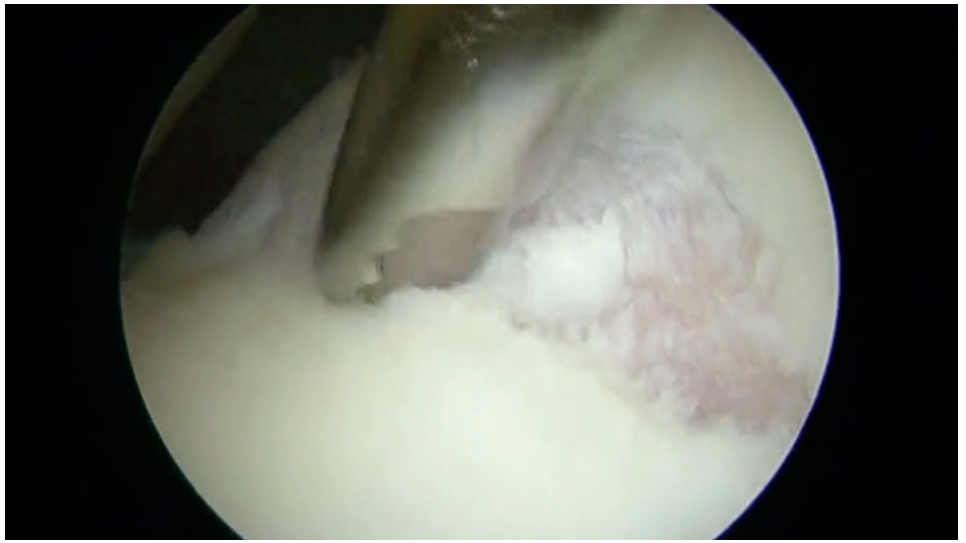
- If no significant improvement then arthroscopy



➔ Treatment may be quicker if there are acute joint crises or blockages

DEBRIDE UNSTABLE LESIONS

but repairing an unstable meniscal lesion is not a fault



- Remove mechanical interference:
  - Cartilage flaps
  - Meniscal tears
  - Impinging osteophytes
  - Avoid chondroplasty of stable cartilage

MENISCECTOMY

➔Only unstable lesion

➔ patient informed of the risk of progression of osteoarthritis

PRECOCES	INTERMÉDIAIRES	TARDIVES
Thrombose 0,15 Infection 0,04 Hémarthrose 0,23 Fistule 0,08	Chondrolyse rapide Ostéonécrose du condyle Lésion résiduelle SDRC	Syndrome douloureux post ménisectomie
	Arthrose précoce	Arthrose tardive

Symposium SFA 2001

not always good outcome

And associated treatments ?

- Arthro + HA (delayed injection)
- Arthro + PRP (delayed or not)
- Arthro + PRP + HA
- Arthro + cells
- …

Ask your questions to the master

Keep in mind
that arthroscopy is not a trivial procedure

J Arthroplasty. 2020 Jan;35(1):100-104. doi: 10.1016/j.arth.2019.08.043. Epub 2019 Aug 27.

Prior Knee Arthroscopy Is Associated With Increased Risk of Revision After Total Knee Arthroplasty

Alex Gu [1], Michael-Alexander Malahias [2], Jordan S Cohen [3], Shawn S Richardson [4], Seth Stake [5], Jason L Blevins [4], Peter K Sculco [2]

Arthroscopy before TKA increases the rates of revision,

Arthroscopy appears to offer limited benefit at the cost of poorer outcomes when they require arthroplasty in the future.

CONCLUSION

- Analyze the problem of the origin of internal compartment pain carefully
- Apart from acute blockages, allow time for medical treatment
- Arthroscopy retains a place for the removal of symptomatic unstable lesions
- It is necessary to keep some indications of meniscal repair