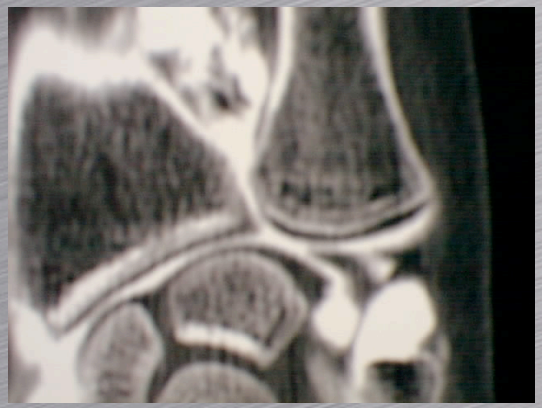
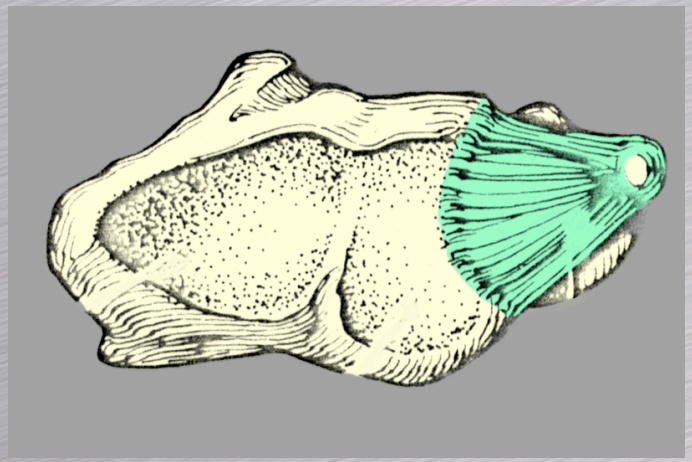
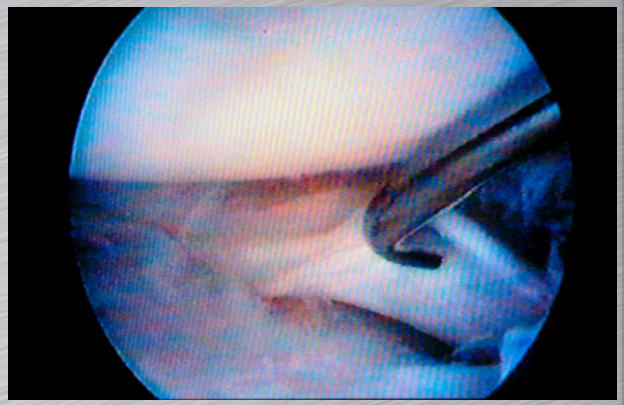
Traitement arthroscopique des lésions du ligament triangulaire et résultats







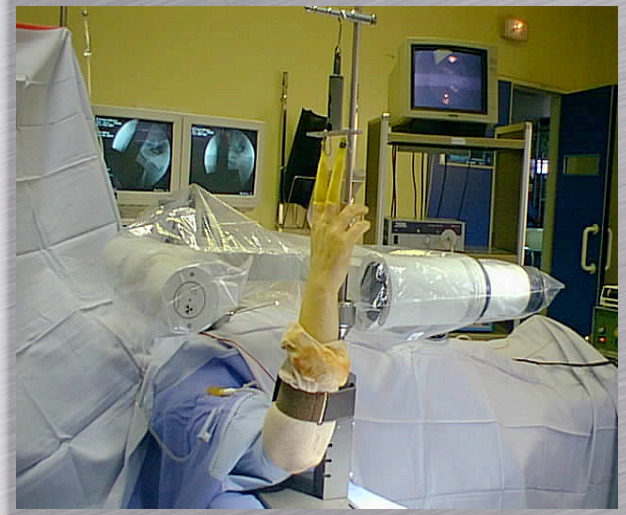
Christian Dumontier

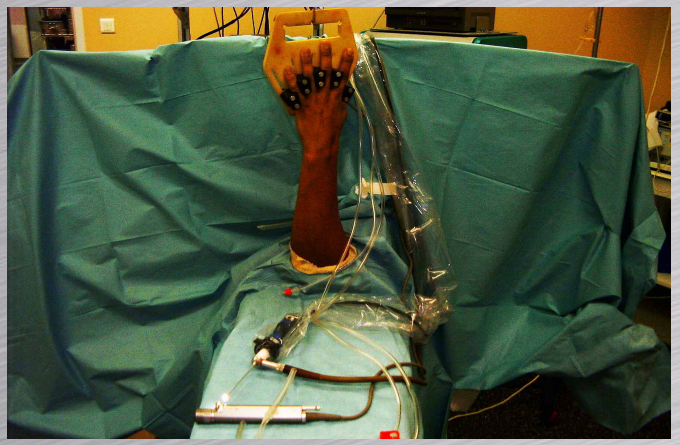
Institut de la Main & Hôpital saint Antoine, Paris

(avec l'aide de C. Mathoulin et D. Fontes)

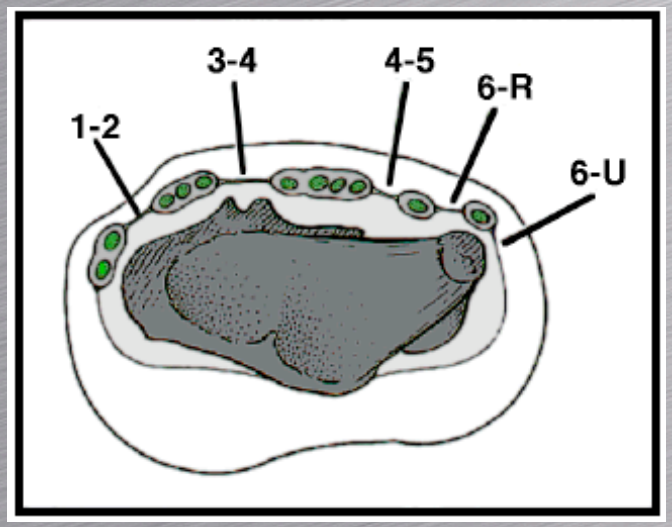
Installation

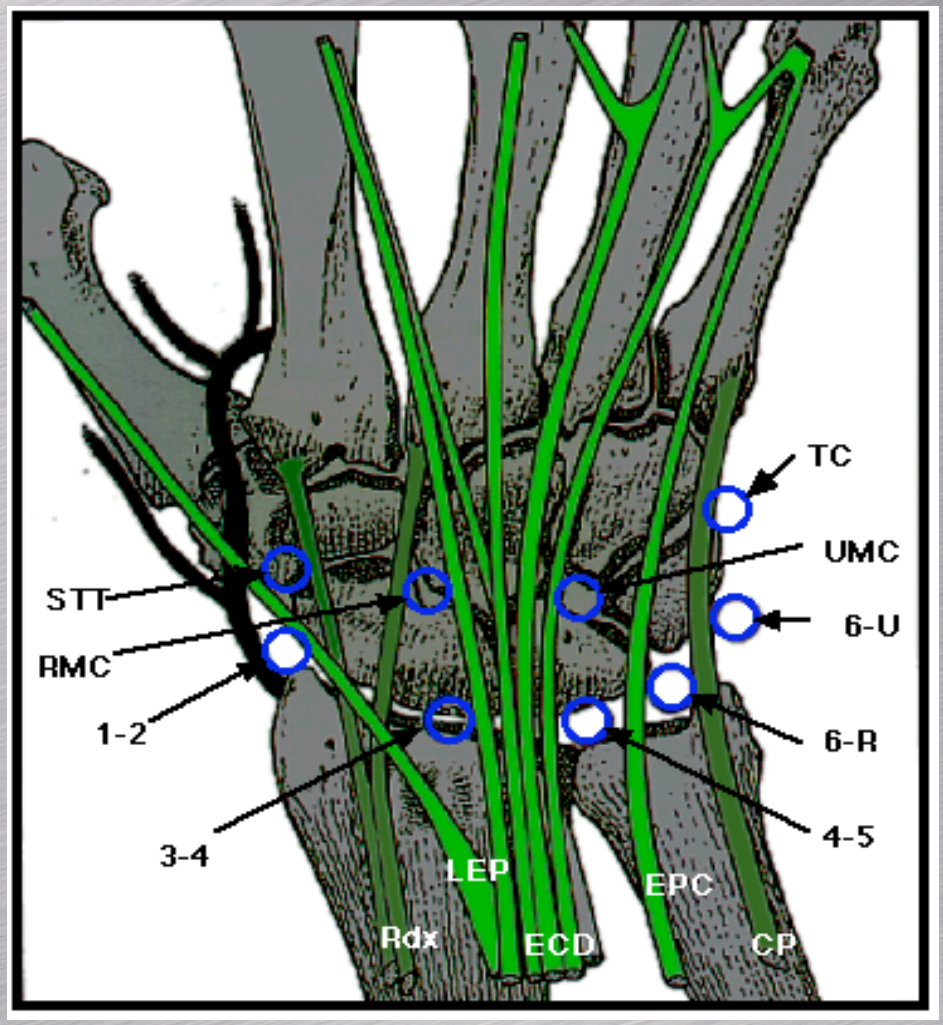
- Traction axiale, coude à 90°



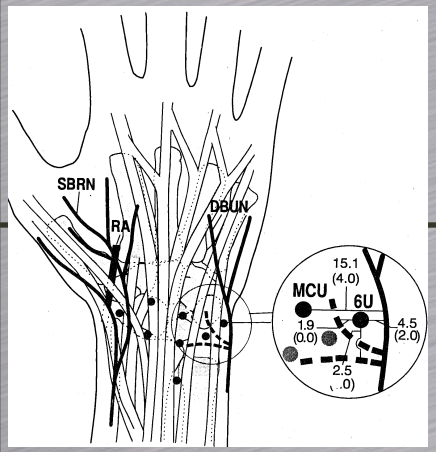


- Voies d'abord radio-carpiennes
  - 3 / 4 pour le scope
  - 4 / 5 ou 6R pour l'instrumentation
  - 6U pour les sutures



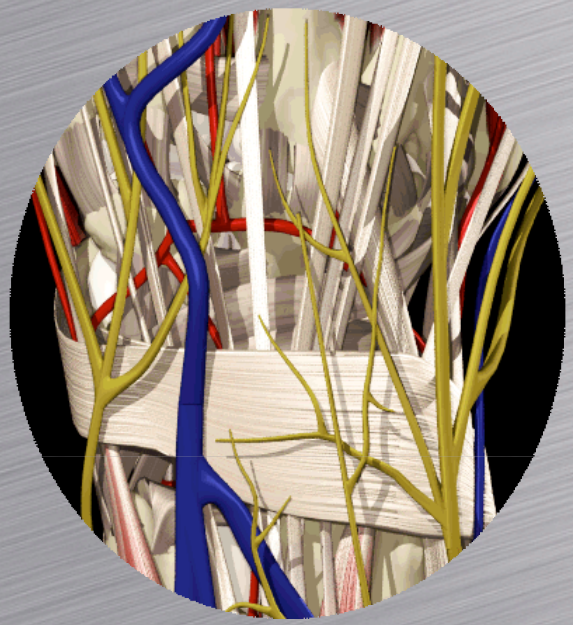


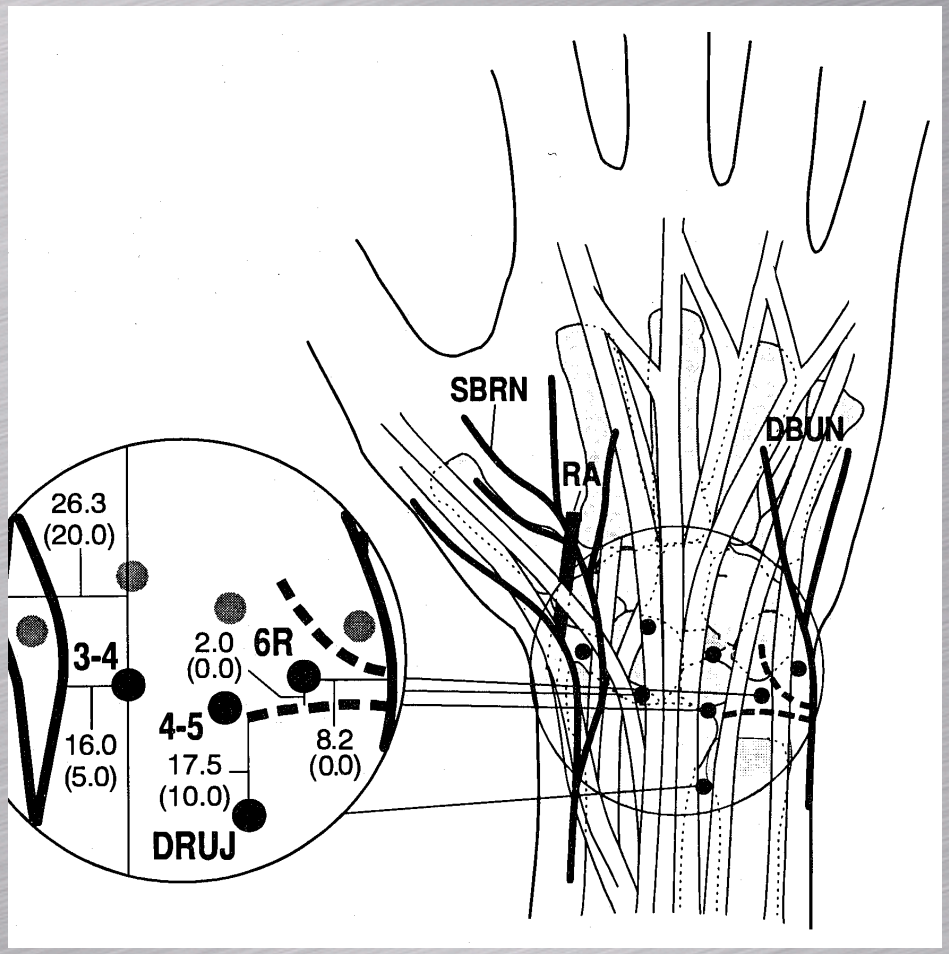
Dangers

	3/4	4/5	6R
Tendons	8 mm (4-12, sd 2,5)	6,7 mm (4-8, sd 1,5)	4,5 mm (1-7, sd 1,7)
Nerfs	16 mm (5-22, sd 5,8)		8,2 mm (0-14, sd 3,6)
Artères	26 mm (20-30, sd 4)		

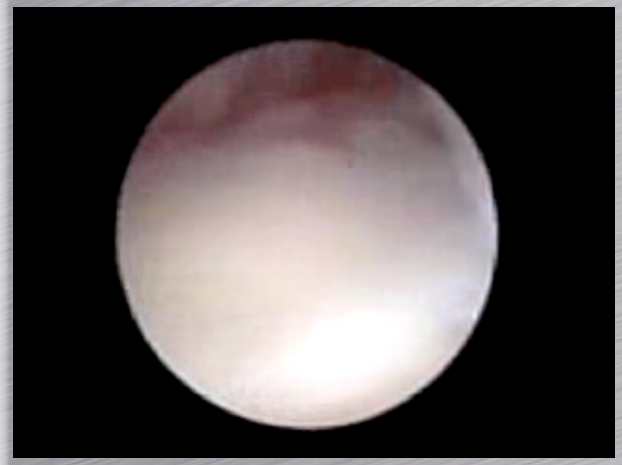
Dangers

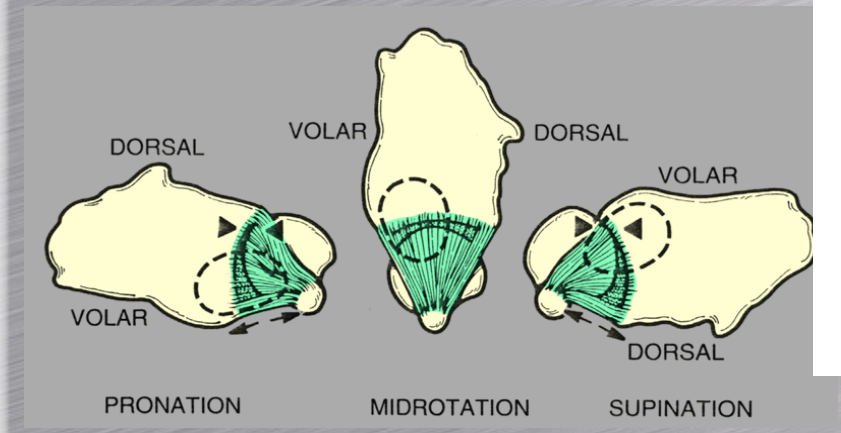
- Attention aux branches dorsales du nerf ulnaire par la voie 6U !

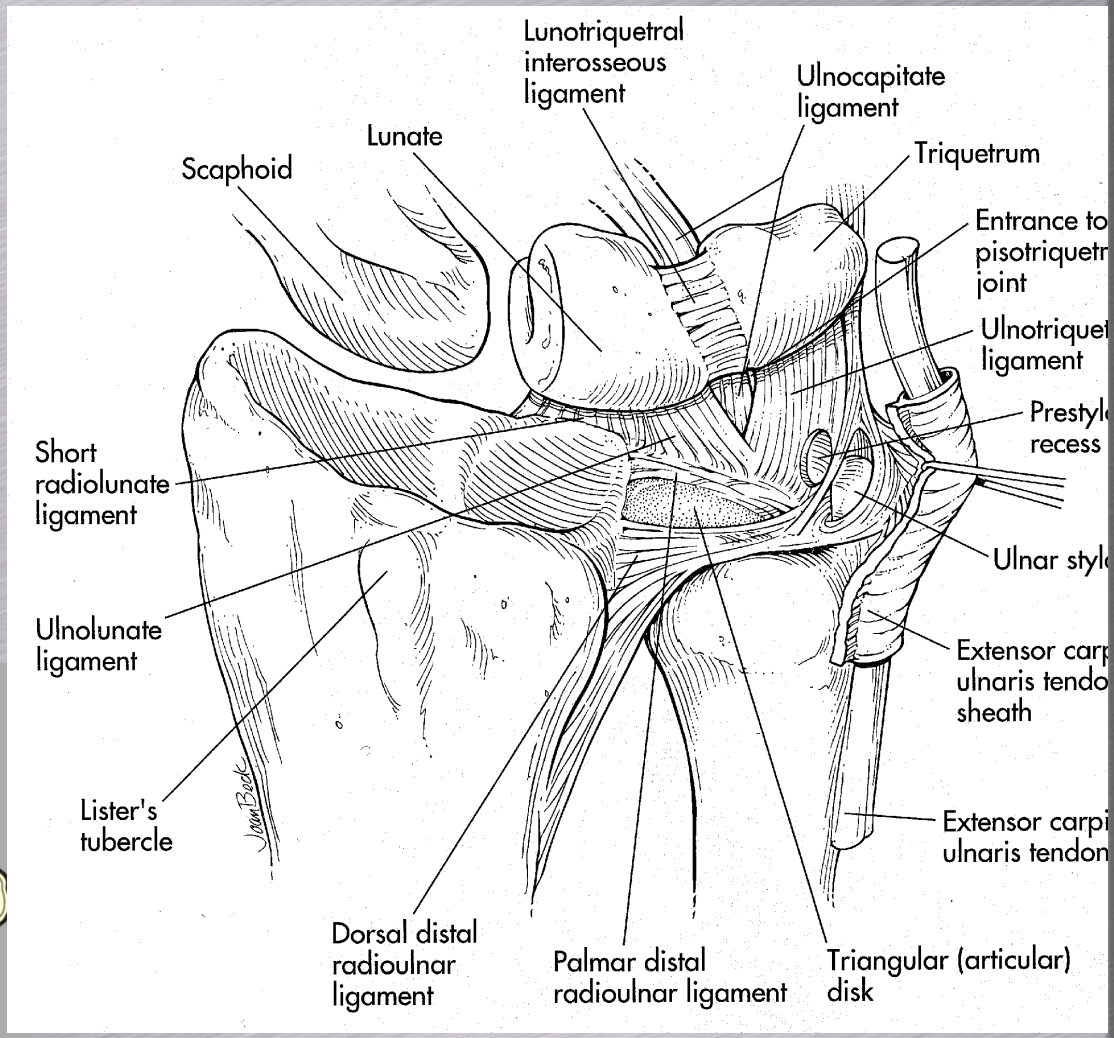




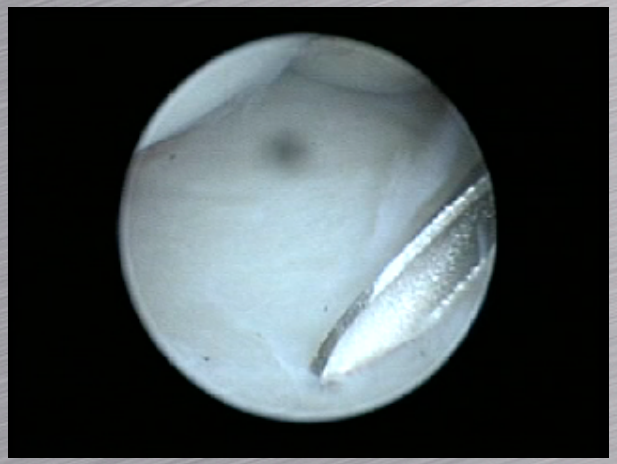
Anatomie arthroscopique

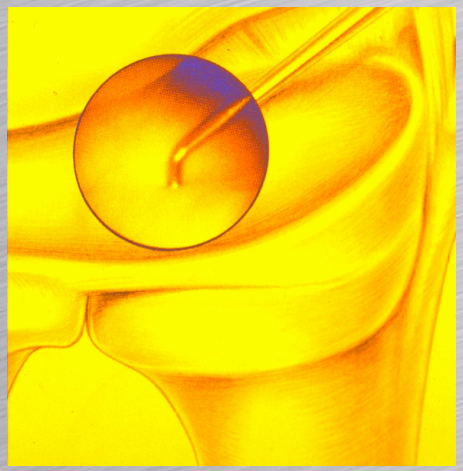


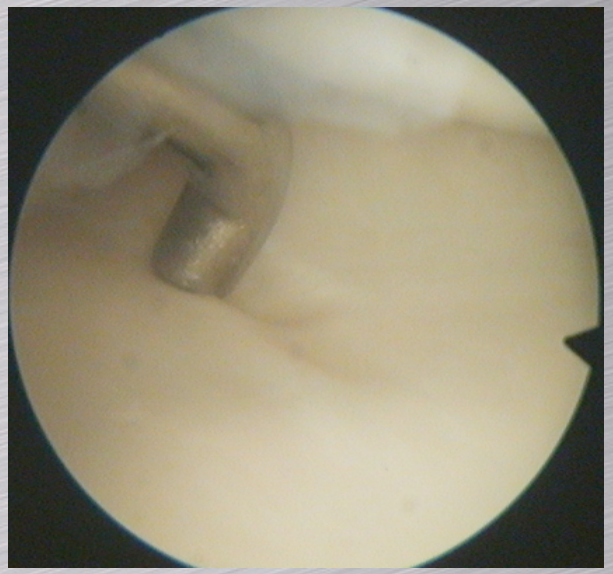


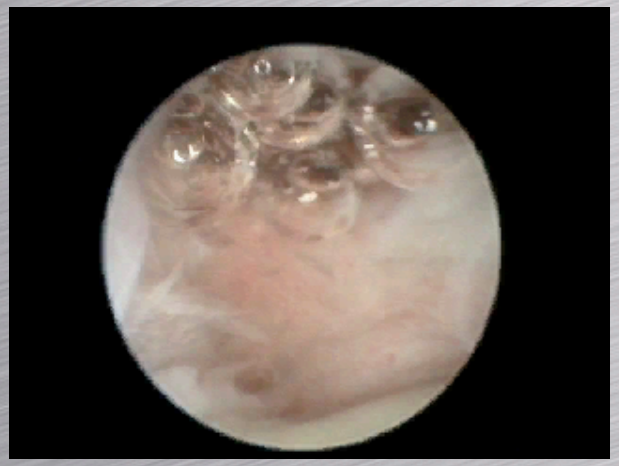


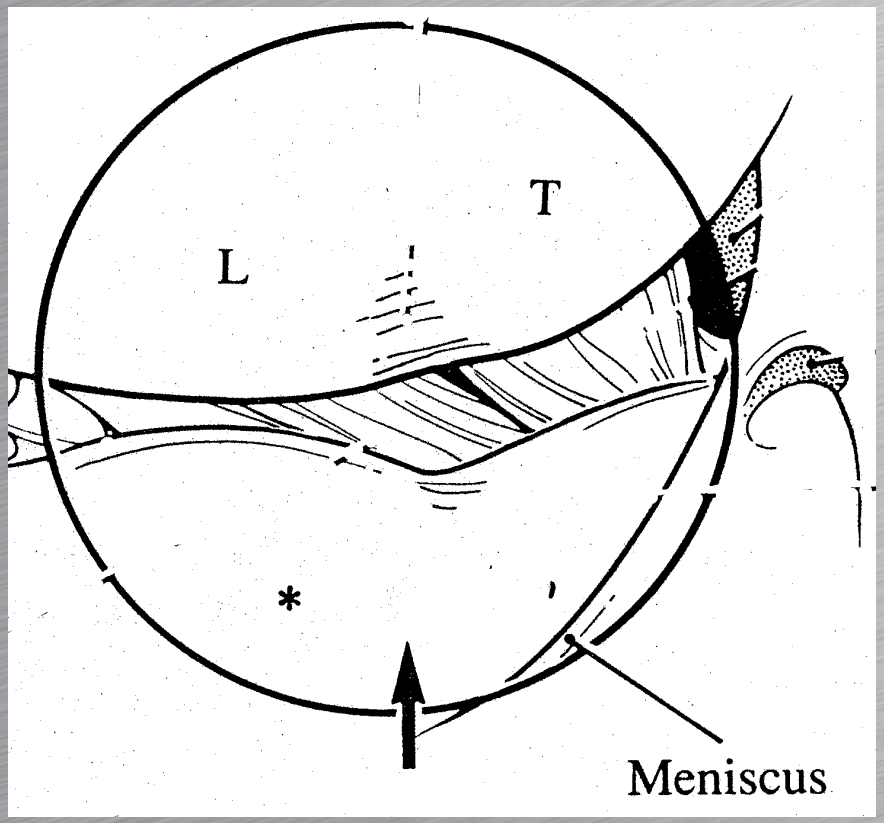
- La jonction radius-TFCC est parfois difficile à voir
- Palpation = aspect élastique du TFCC (trampoline effect)

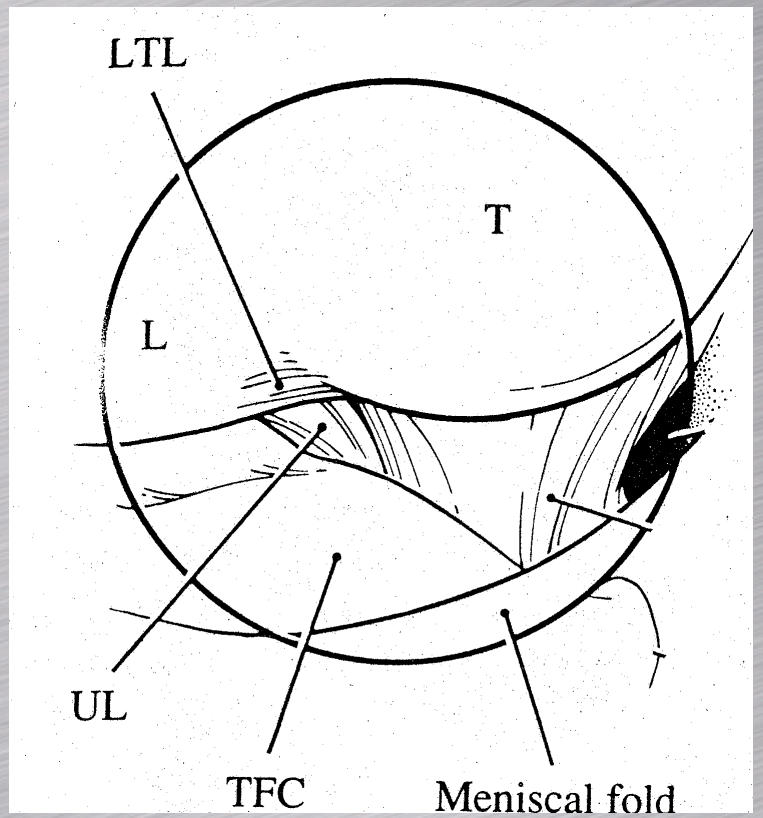




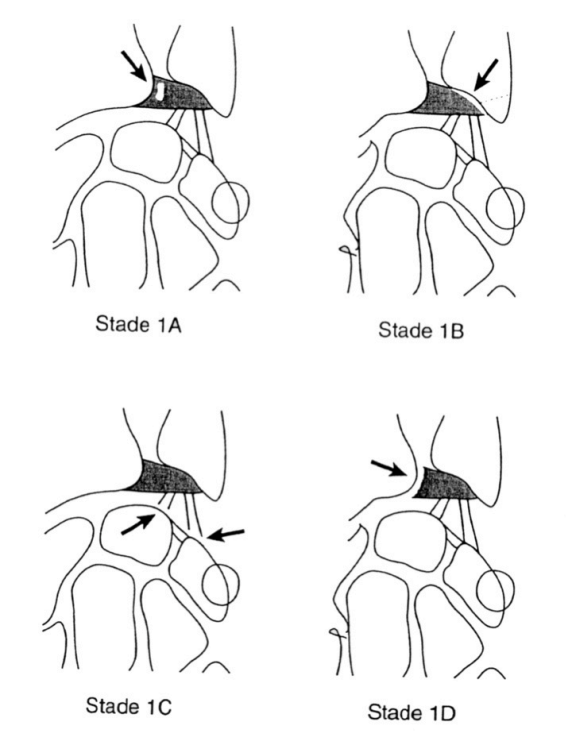




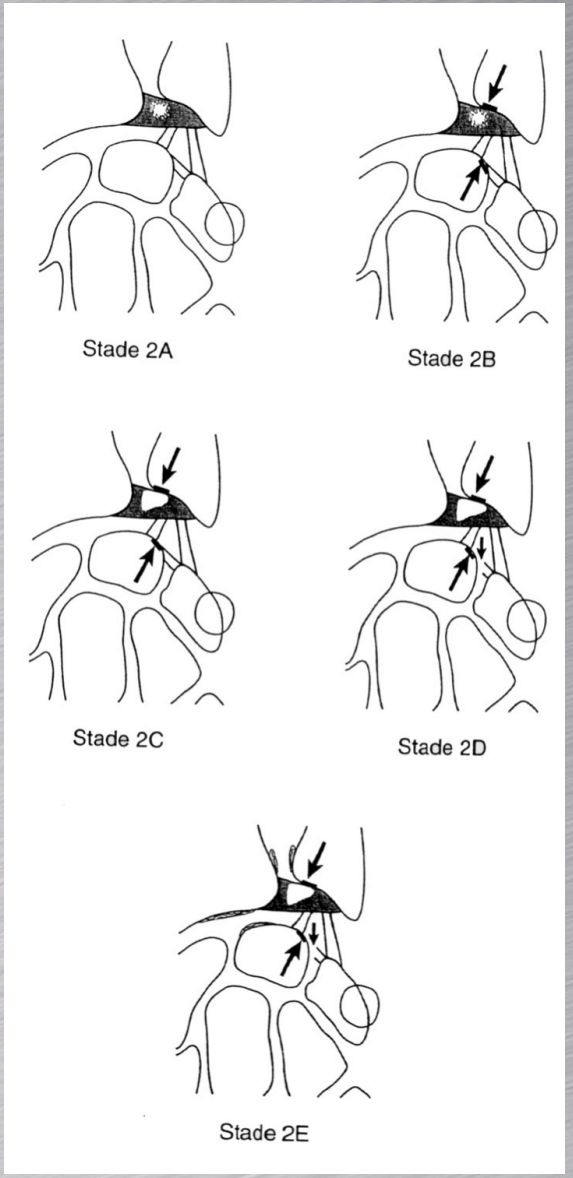

T
L
*
Meniscus


LTL
T
L
UL
TFC
Meniscal fold

Classification de Palmer

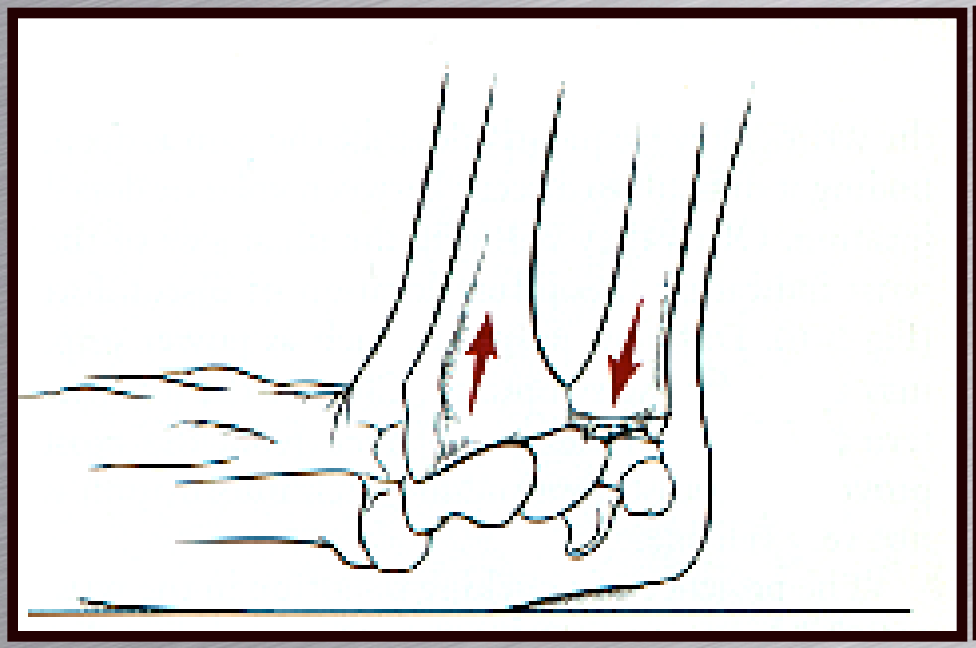


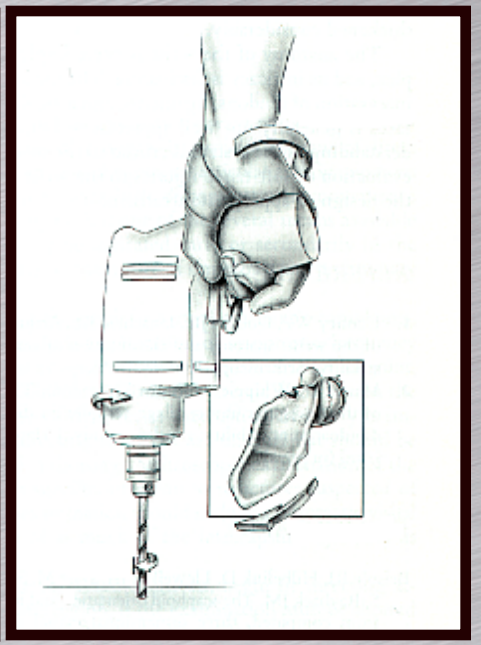
- Lésions traumatiques (Classe 1)
- Lésions dégénératives (Classe 2)



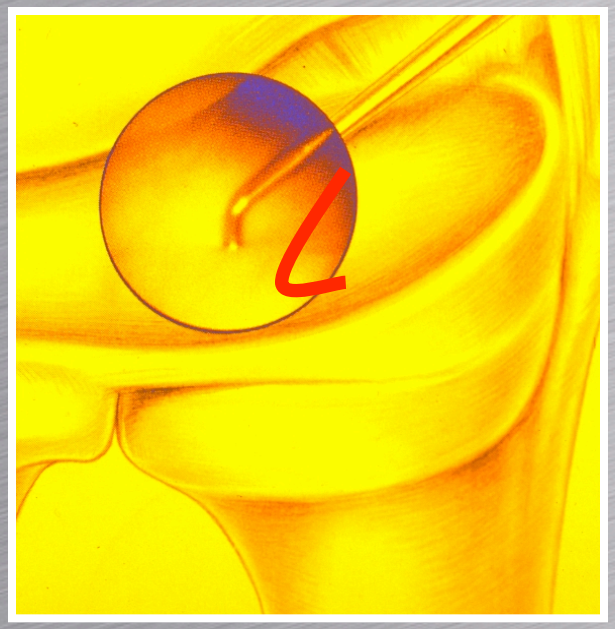
Lésions traumatiques du TFCC

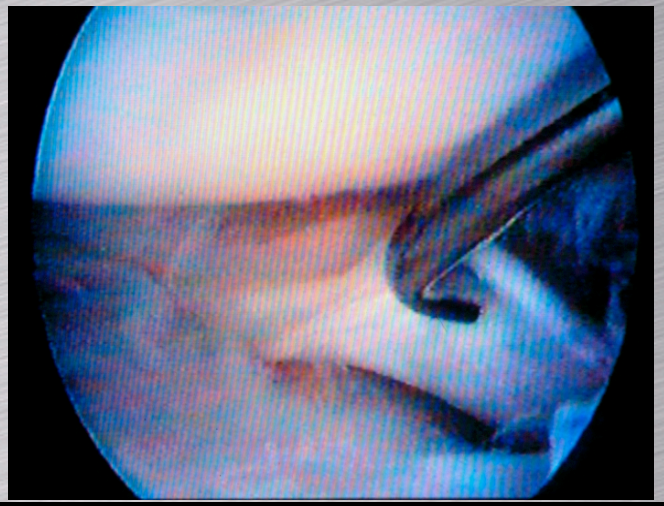
- Lésion par torsion ou excès de contraintes

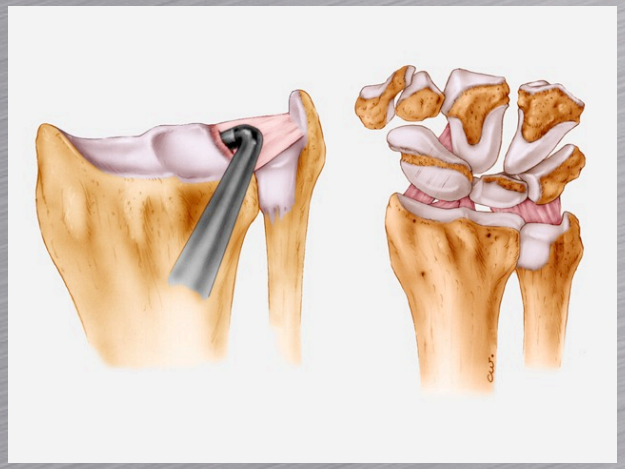




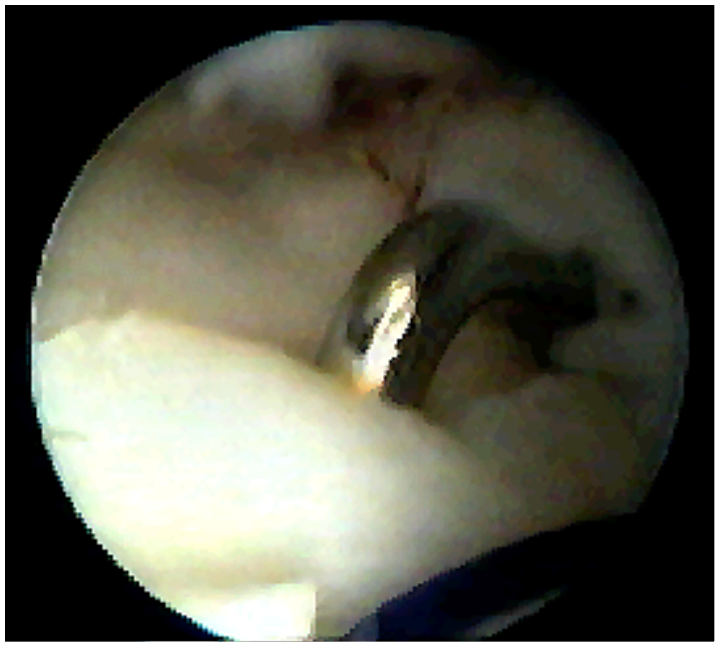
1A = lésion centrale

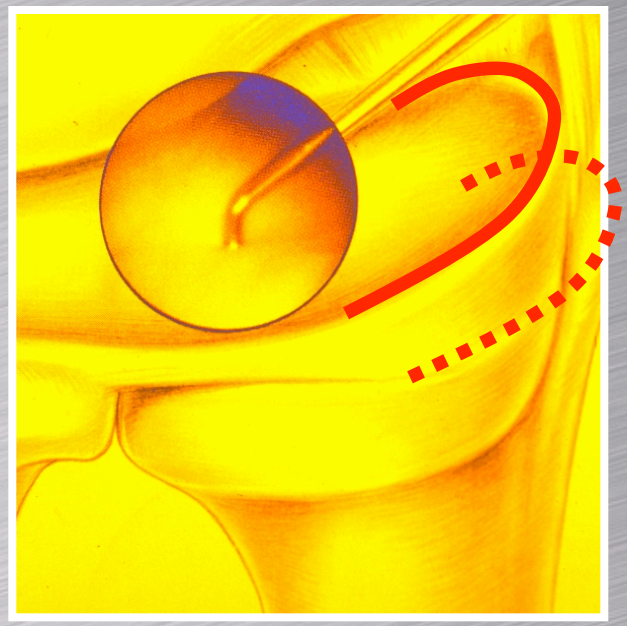


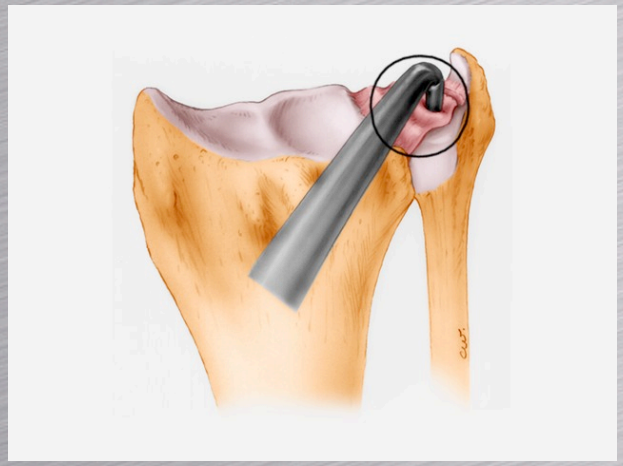




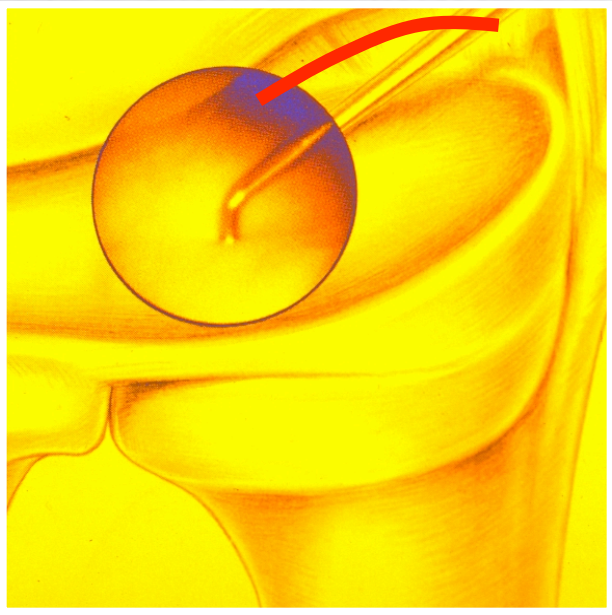
1B = Désinsertion périphérique

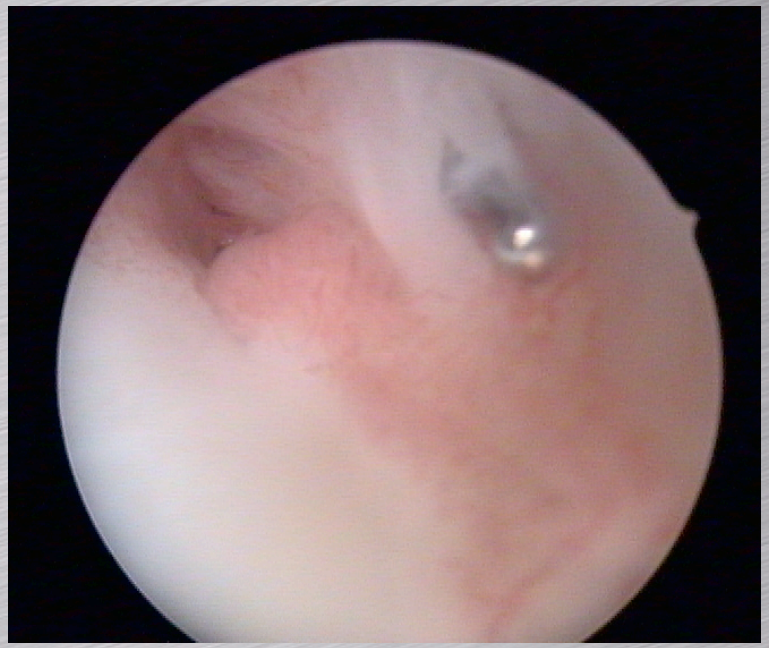


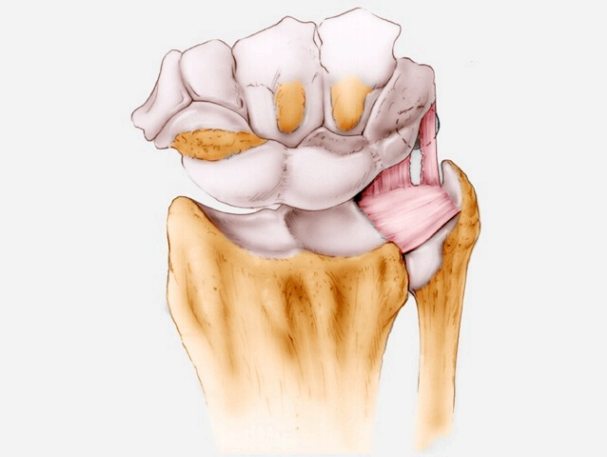




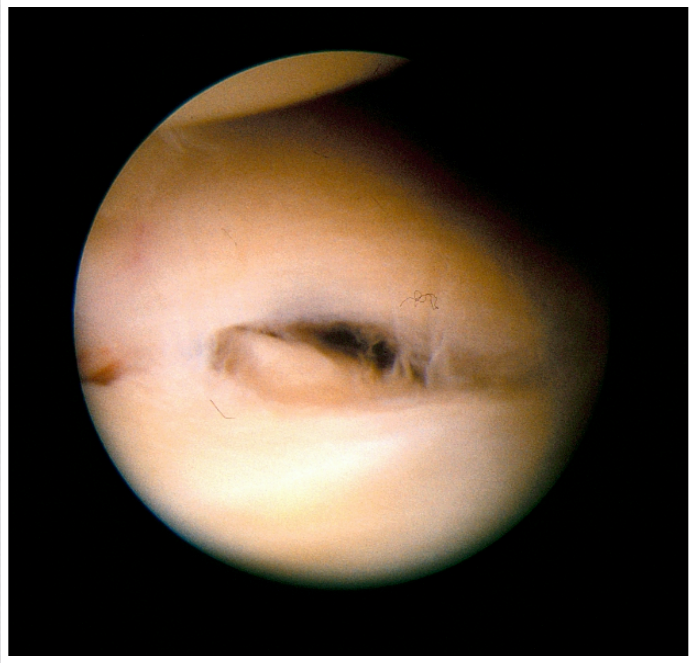
1C = Déchirure des ligaments ulno-carpiens

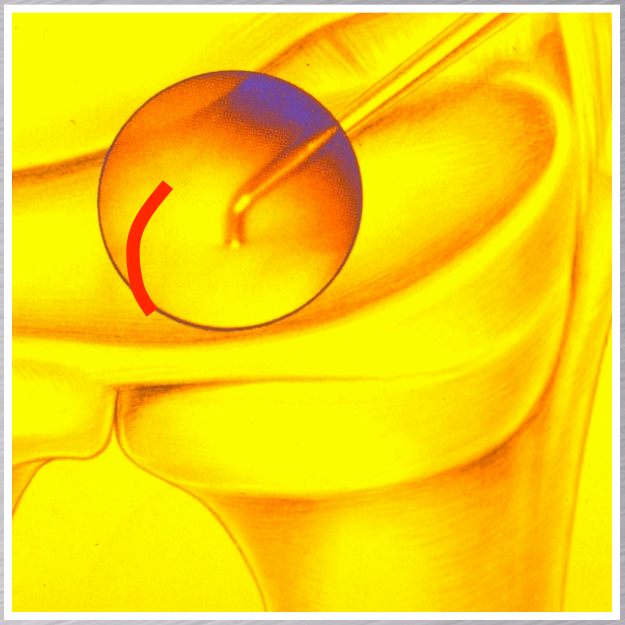


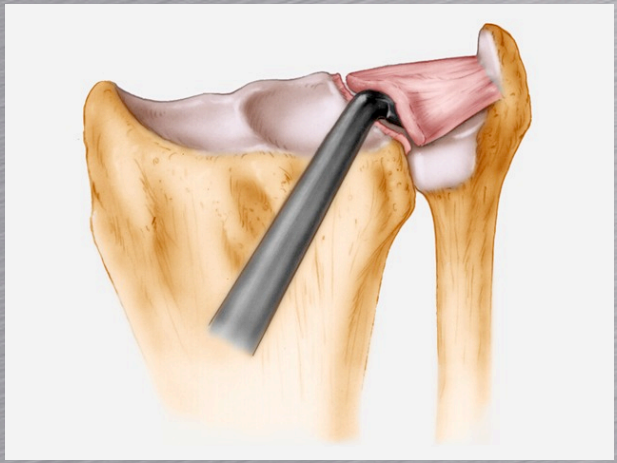


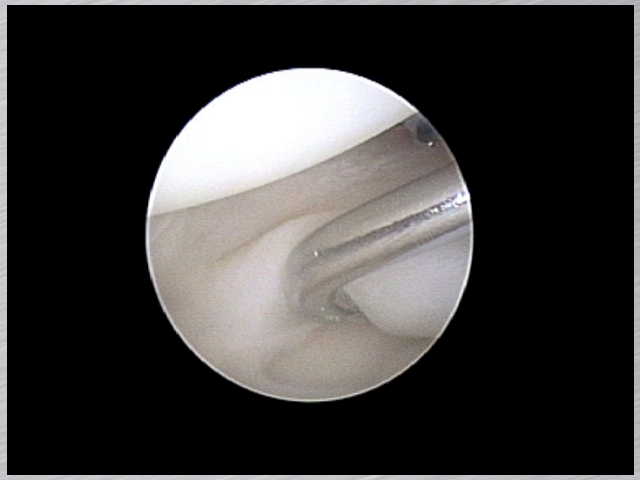


1D = Désinsertion radiale



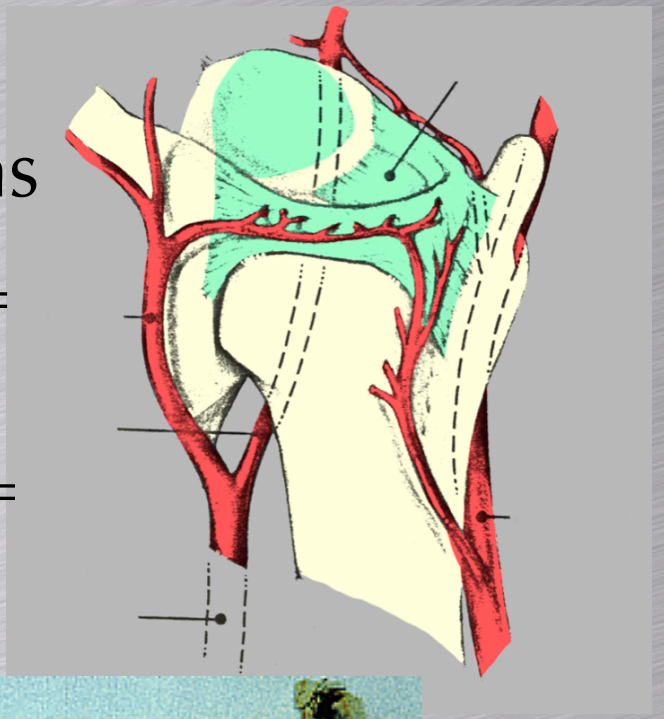


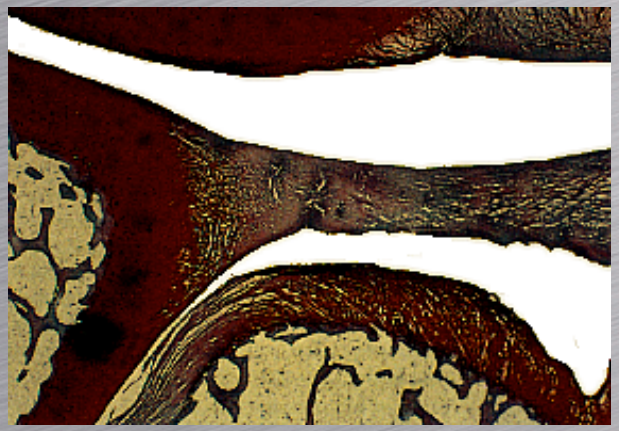


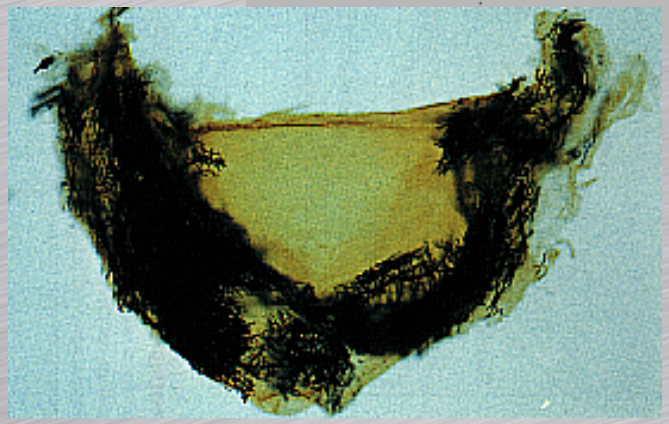


Principes

- Le traitement dépend des lésions
  - En zone centrale = non vascularisée = débridement
  - En zone périphérique = vascularisée = réinsertion

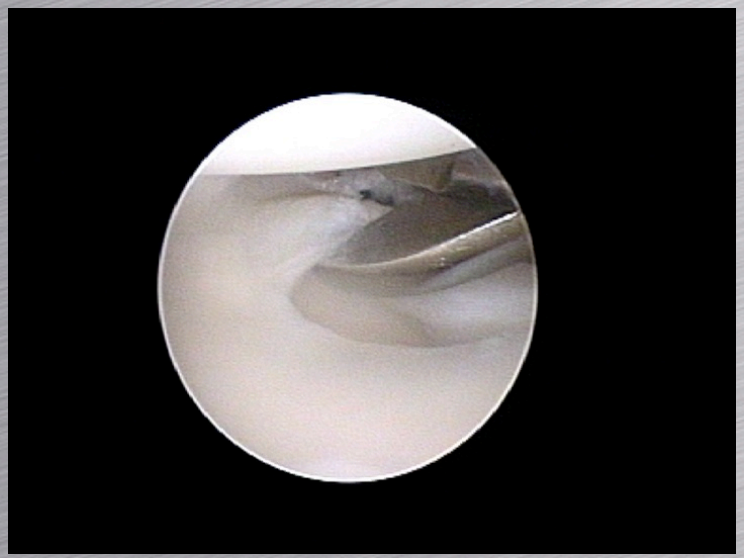


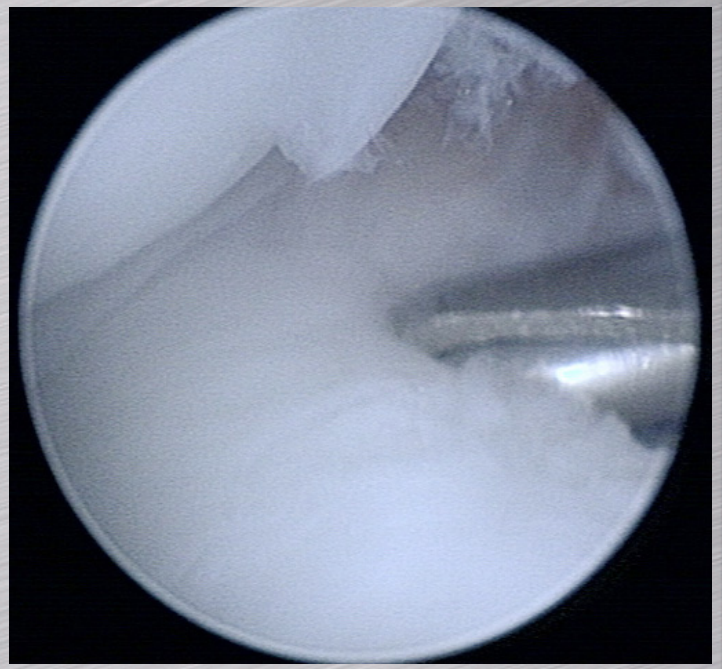


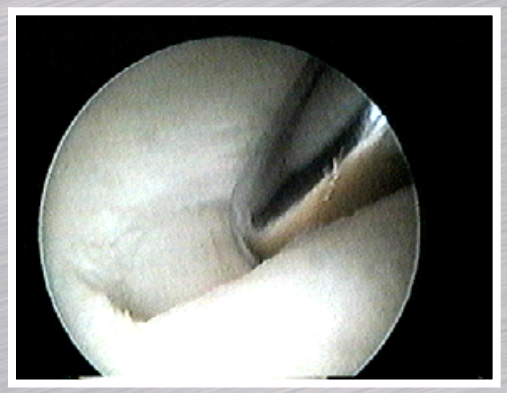


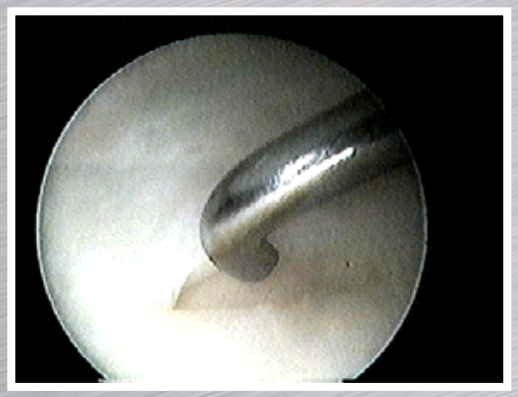
Débridement

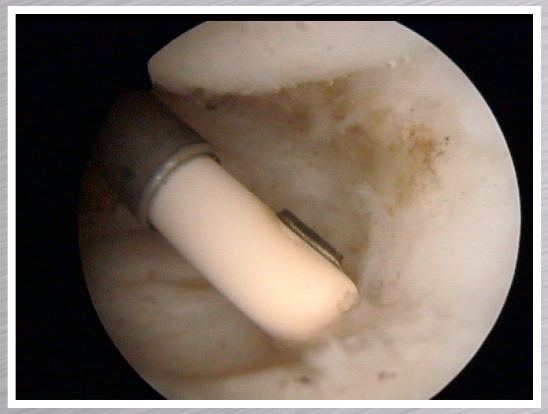
- Au shaver, VAPR, pince Basket,...
- Bien respecter les ligaments radio-ulnaires

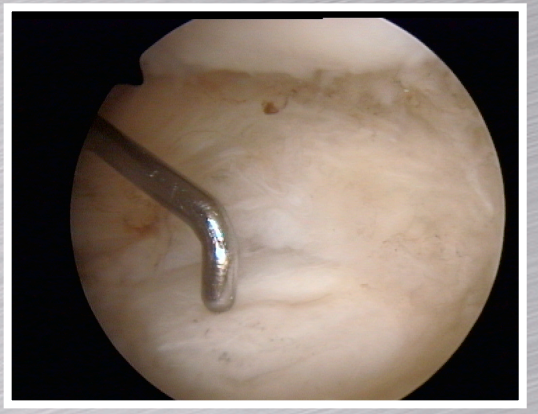


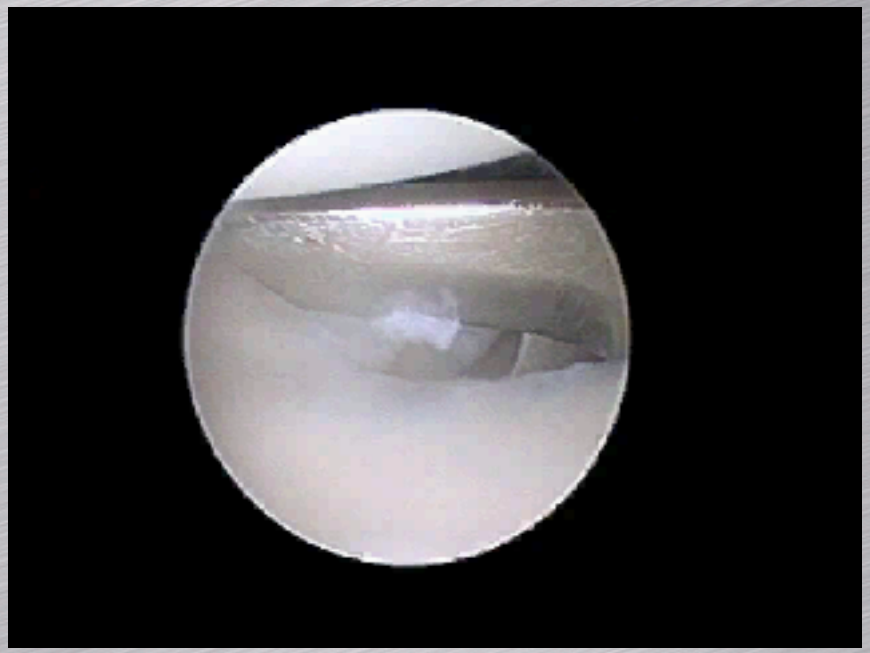






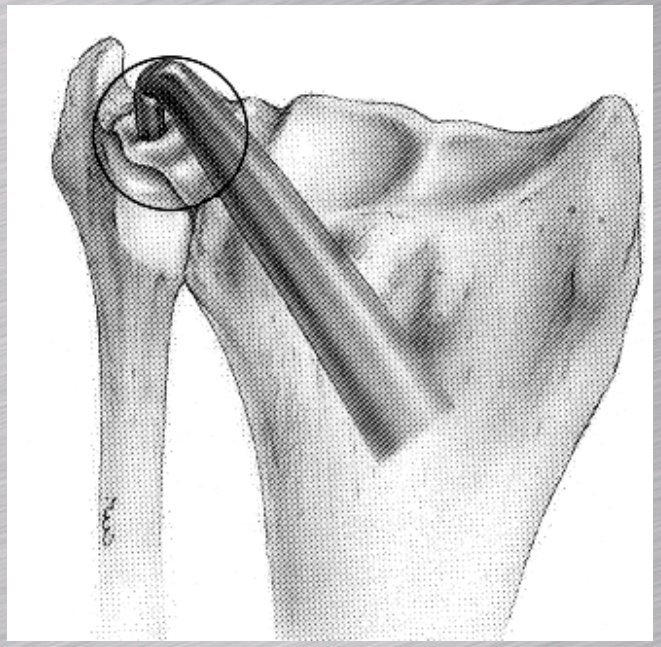






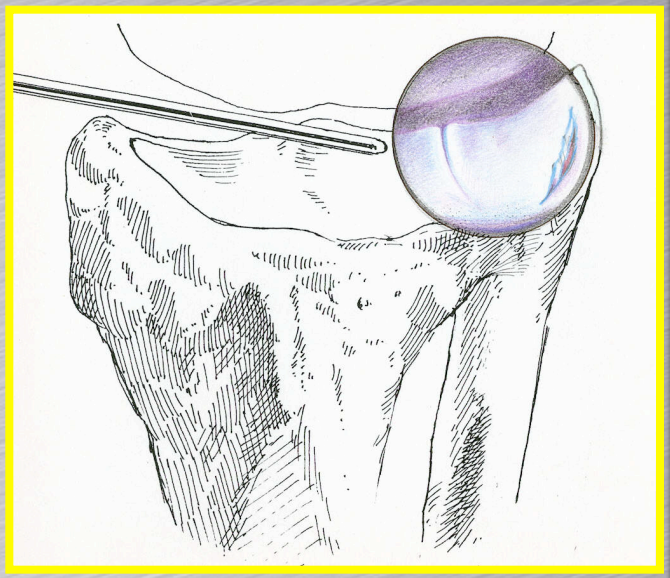
Lésion 1B

- Désinsertion périphérique en zone vascularisée
- Réinsertion



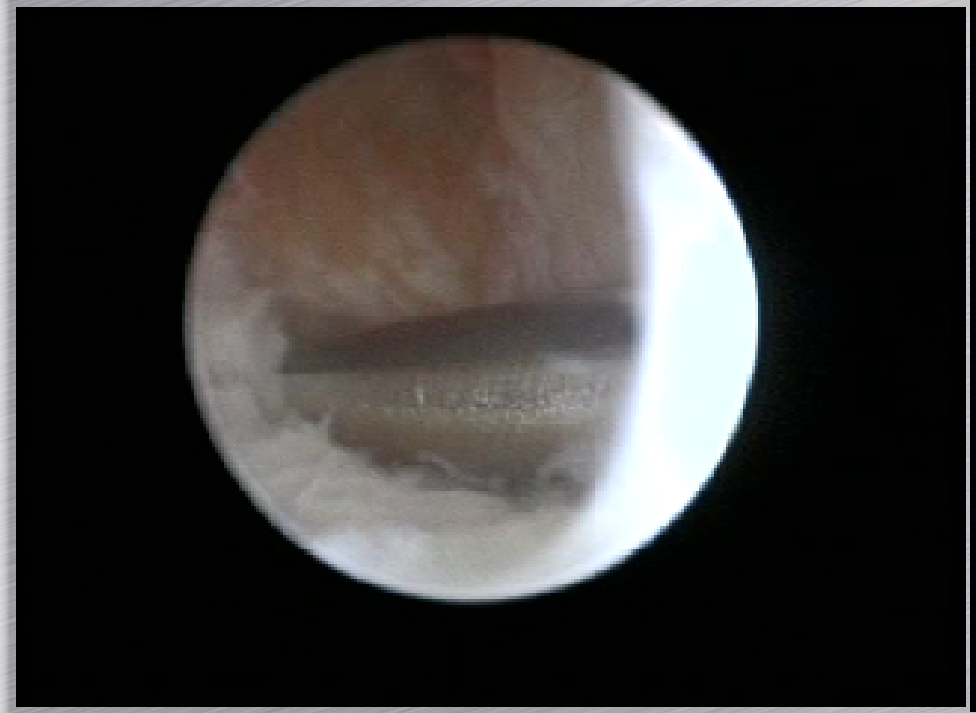
Techniques

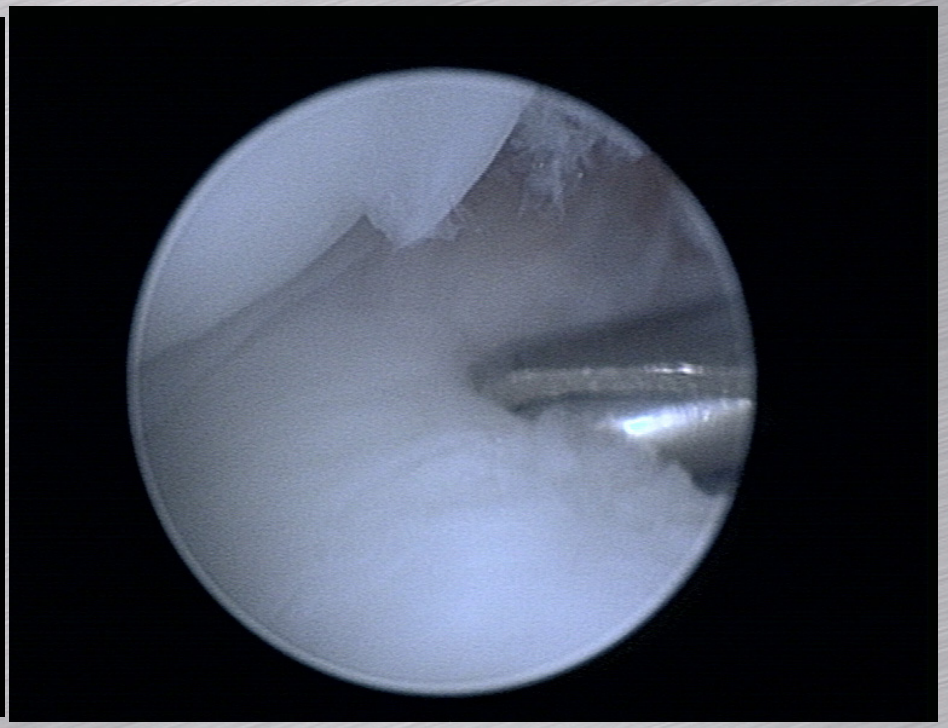
- Suture Inside-Outside
- Suture Outside- inside (et modifications)
- Utilisation du matériel Inteq

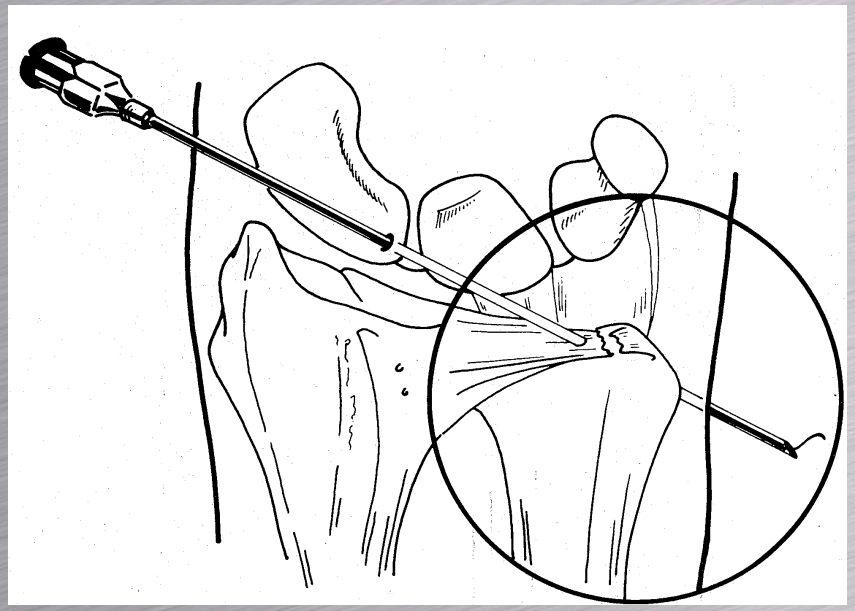


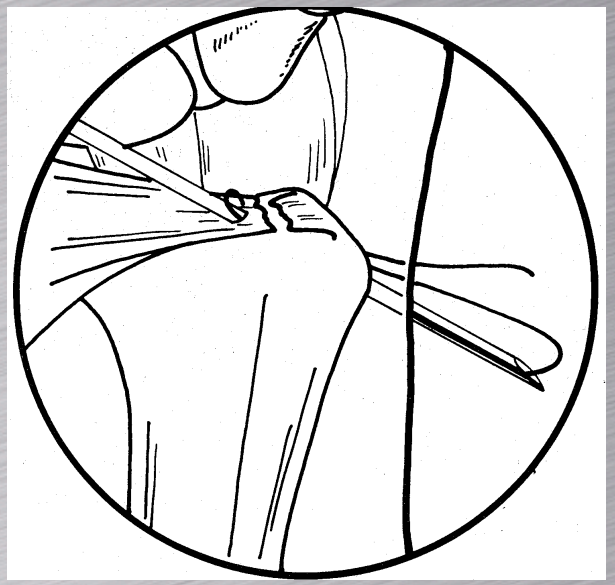
Technique

- On commence toujours par enlever le tissu cicatriciel

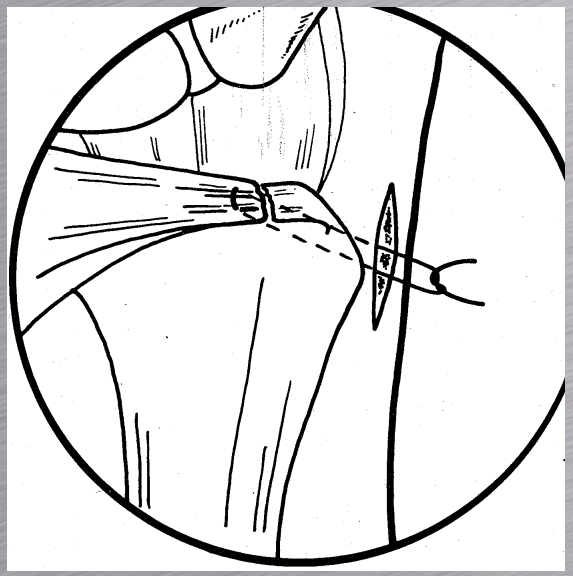








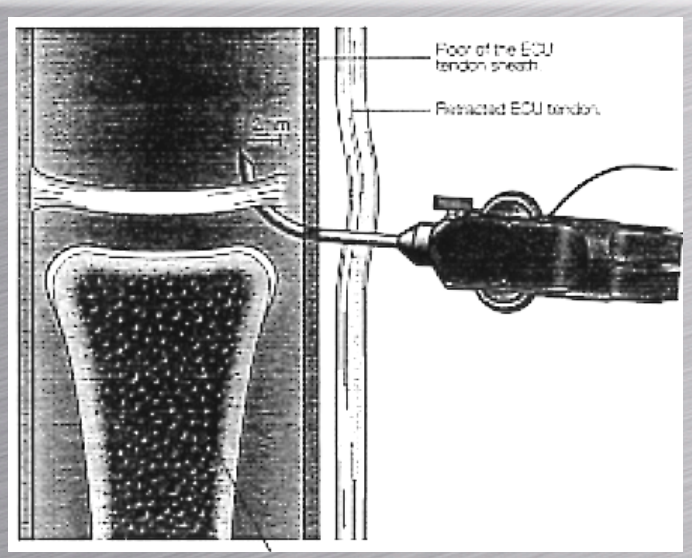
Perforation TFCC, capsule, peau

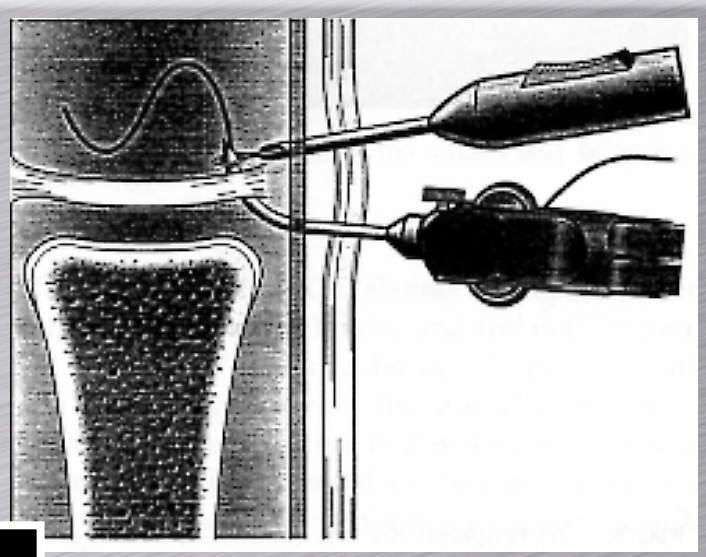


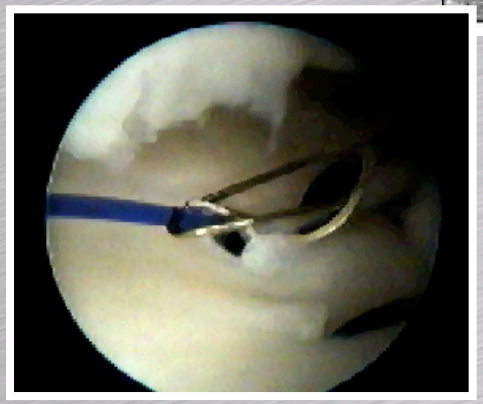
On passe un fil de PDS à travers l'aiguille

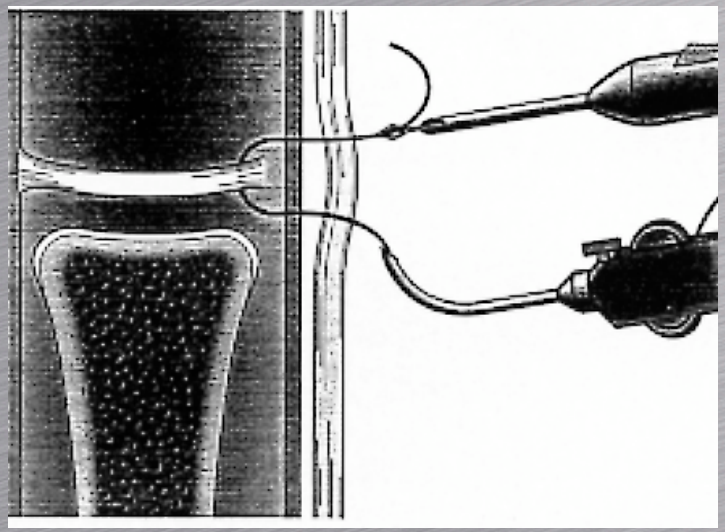
L'aiguille est retirée et replacée juste à côté

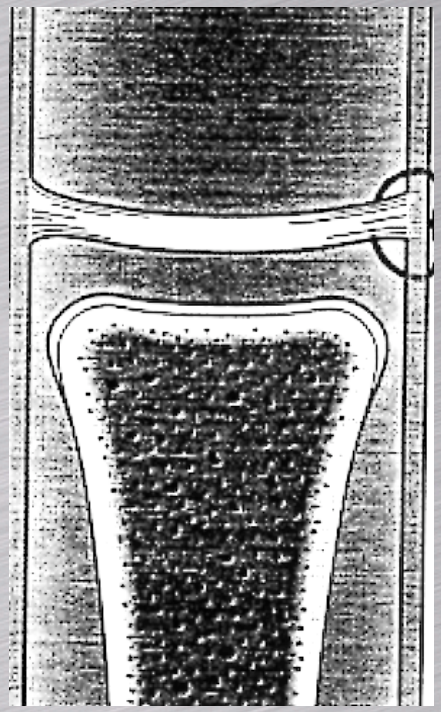
Les deux brins sont noués sur le tendon ECU à travers une courte incision

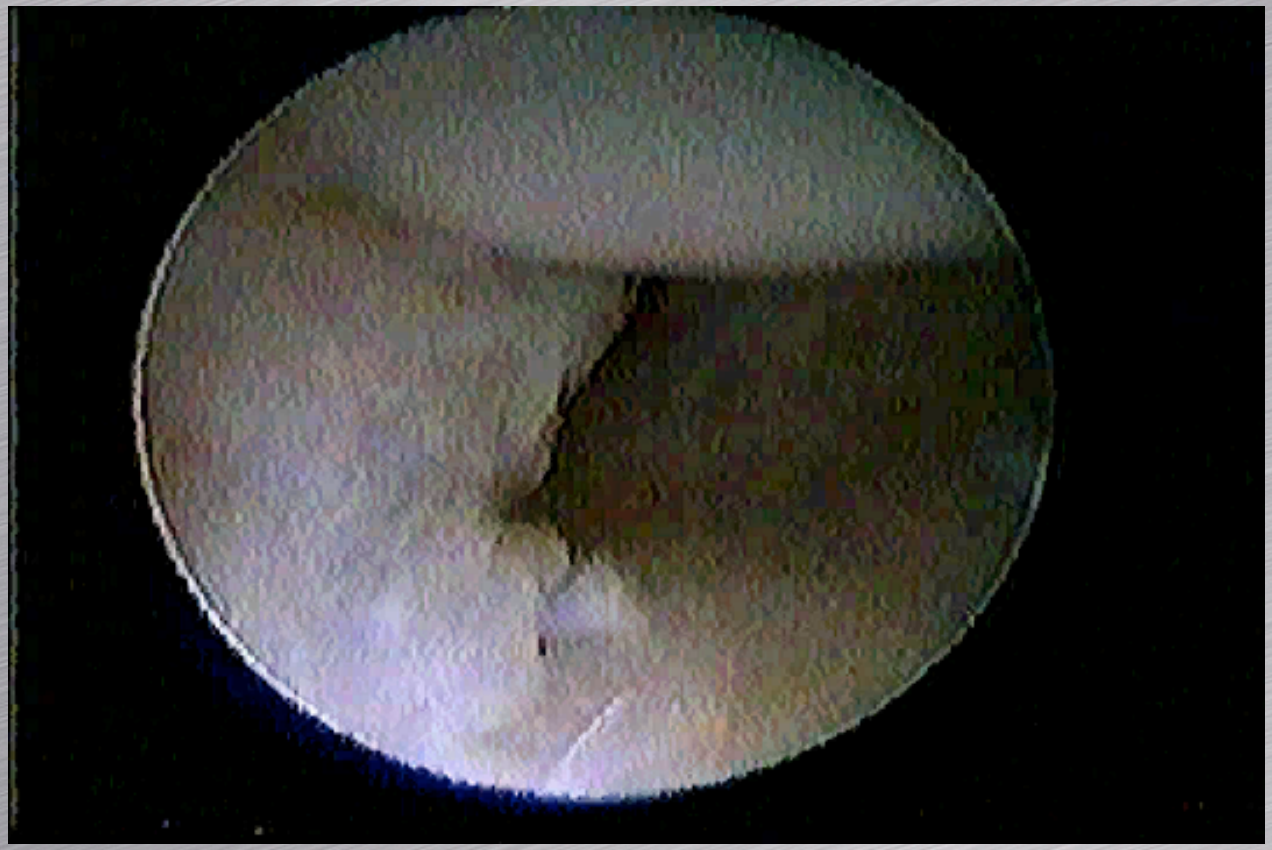

Floor of the ECU tendon sheath
Retracted ECU tendon





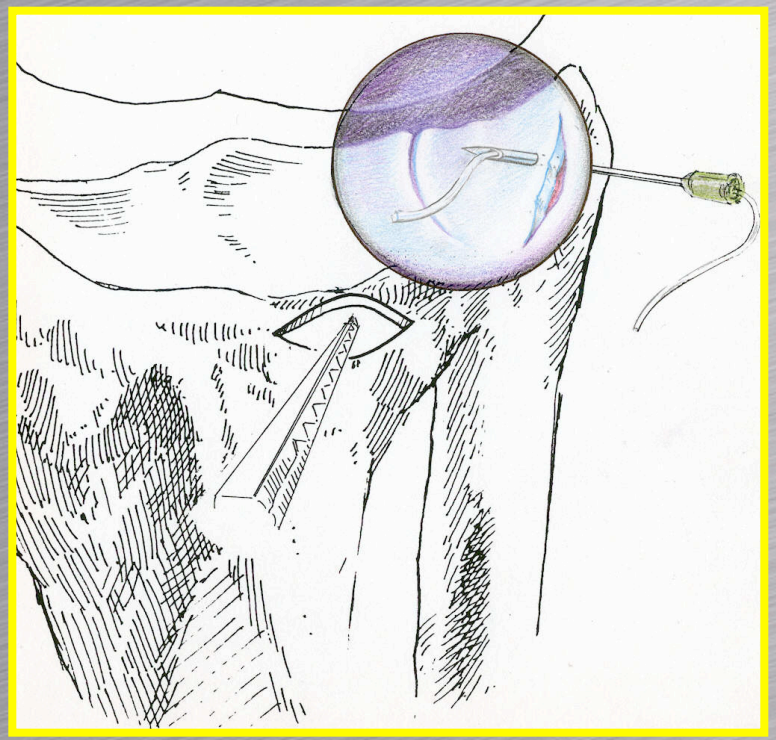


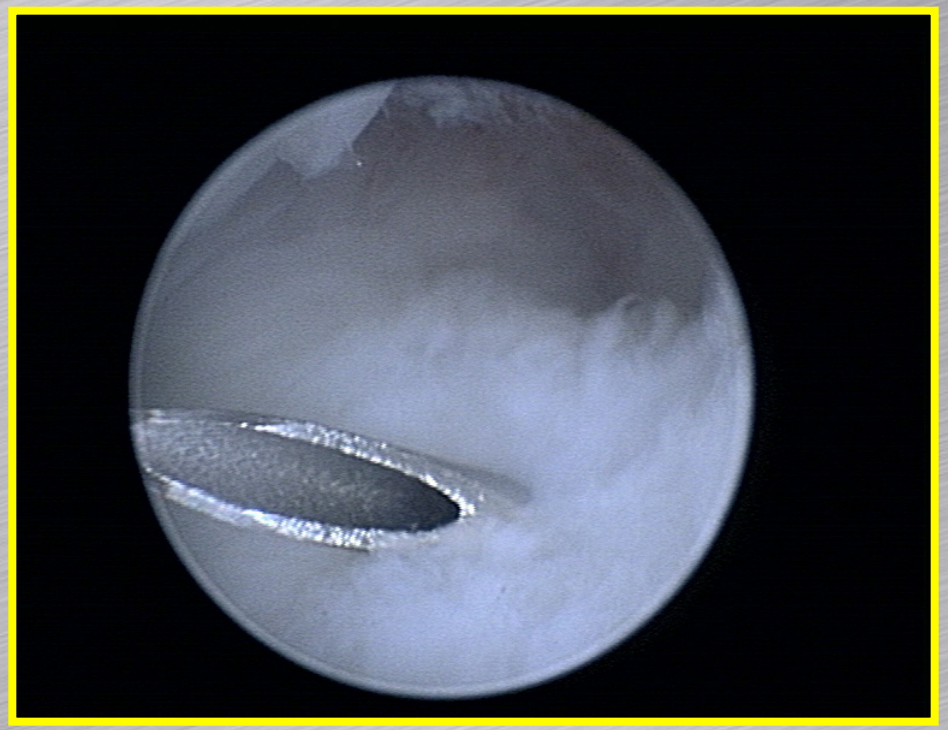




Technique outside-inside

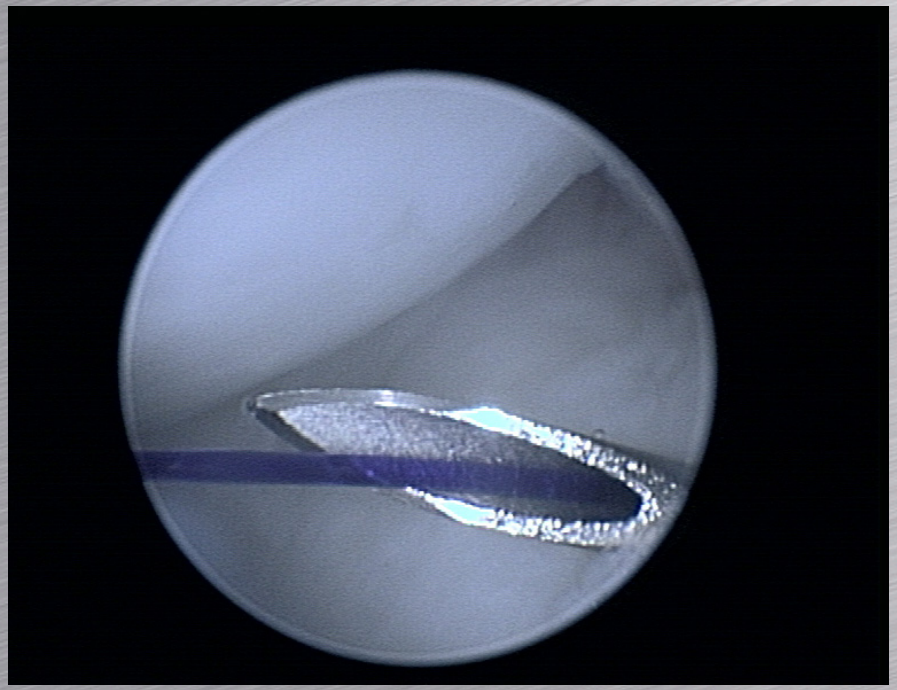
- On introduit par la voie 6U une iaguille 26G

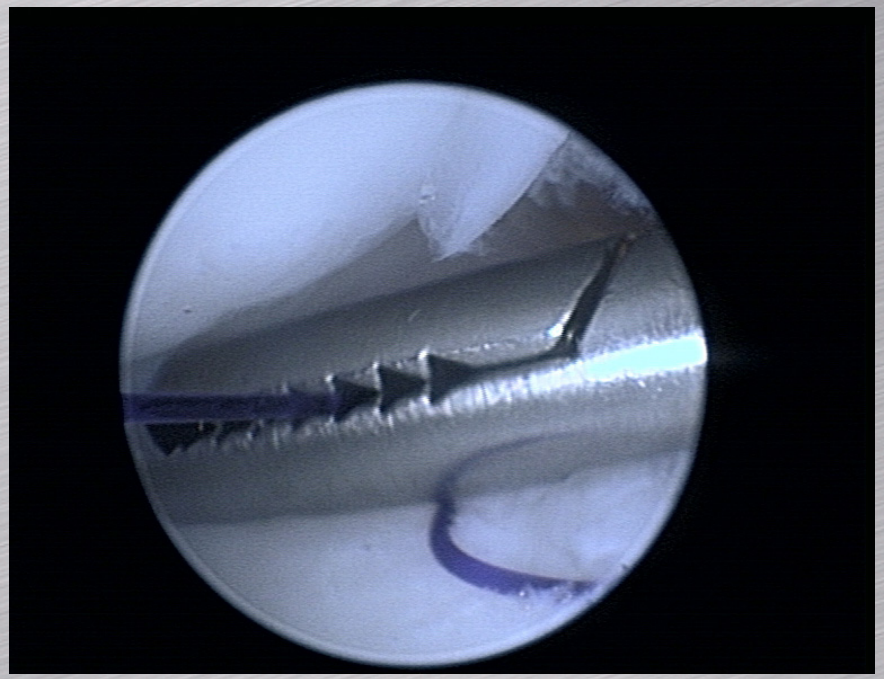




Technique

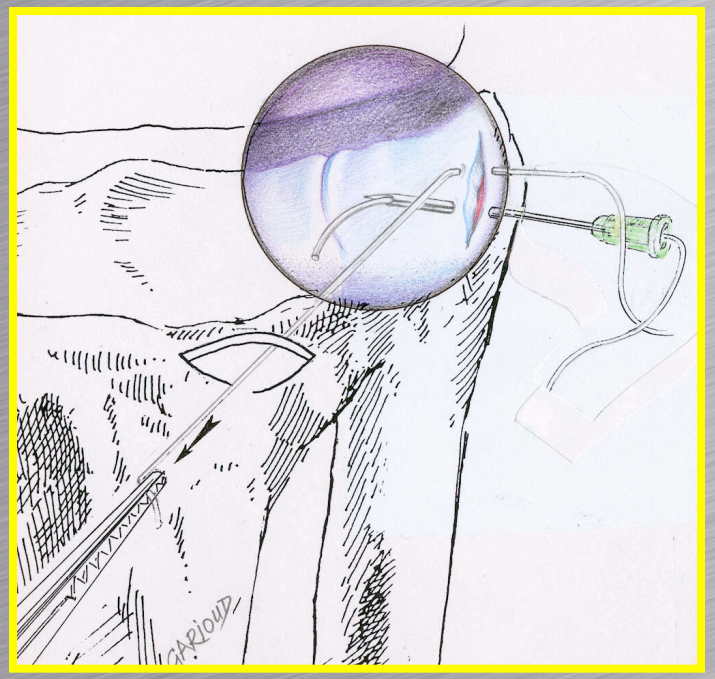
- Un fil de PDS est introduit et récupéré par la voie 6R

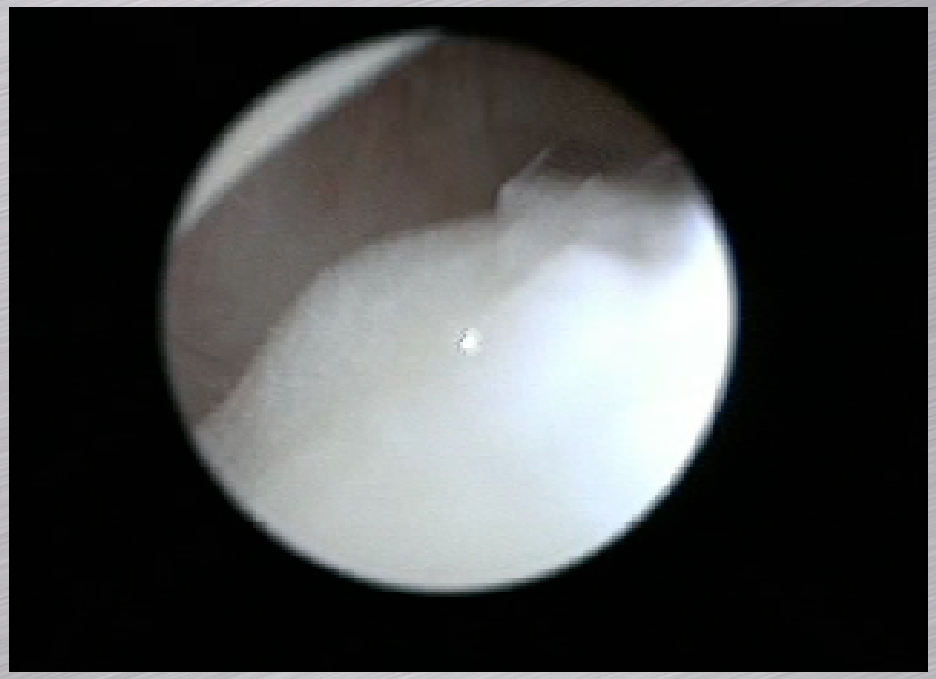




Technique

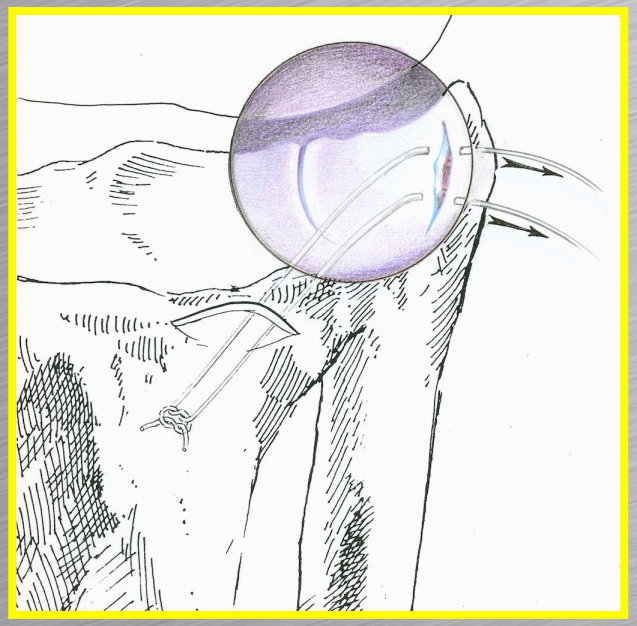
- On recommence la maneuvre en introduisant une aiguille juste à côté

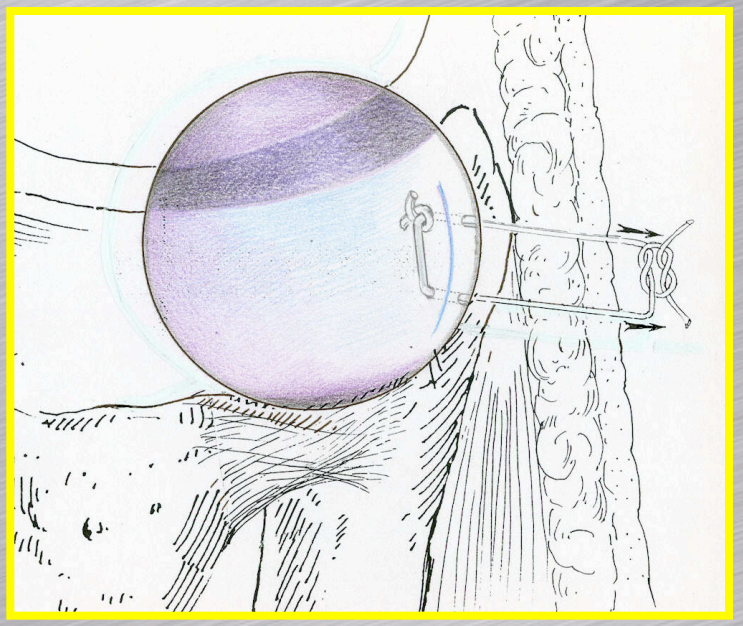


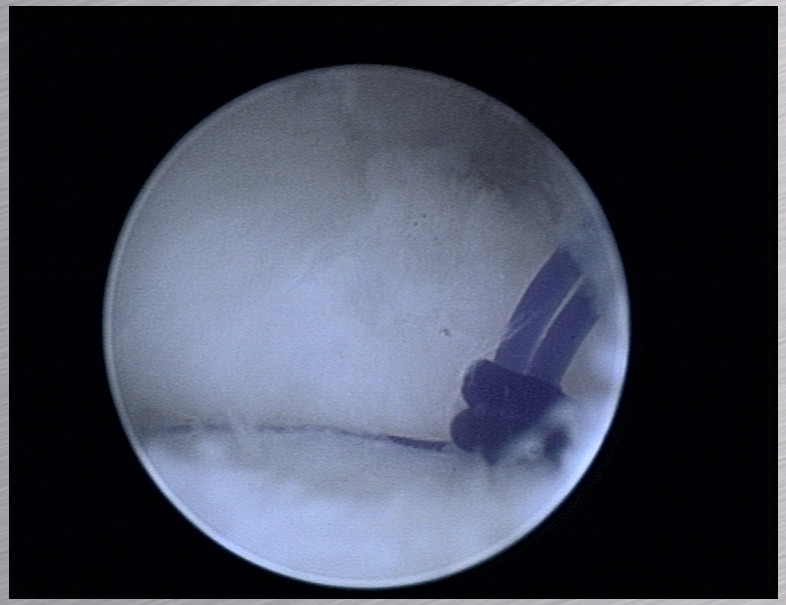


Technique

- Les deux brins sont noués ensemble en dehors du poignet puis tirés et noués en dehors du poignet



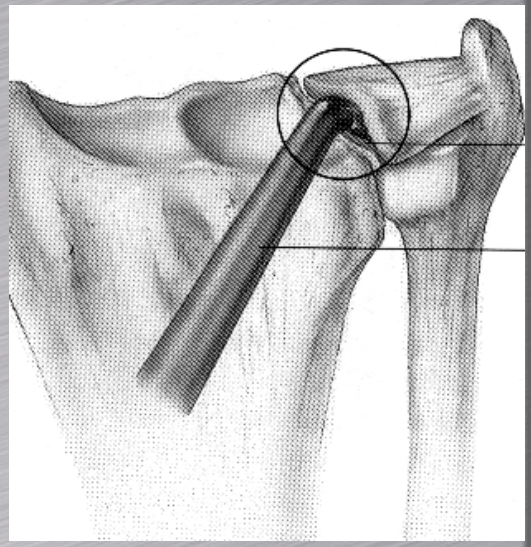




Technique

- Le poignet est immobilisé 6 semaines dans une plâtre Brachio-antebrachio-palmaire

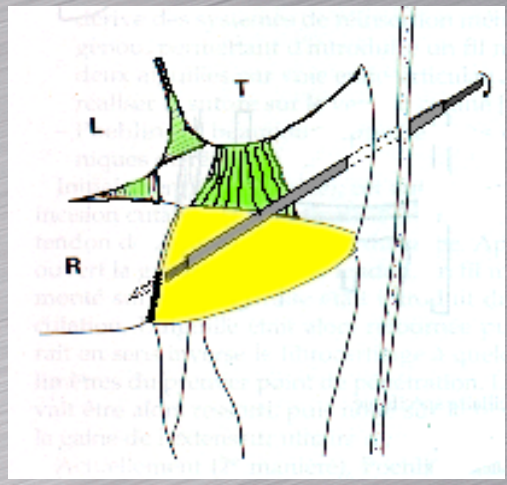
Les lésions de type 1D

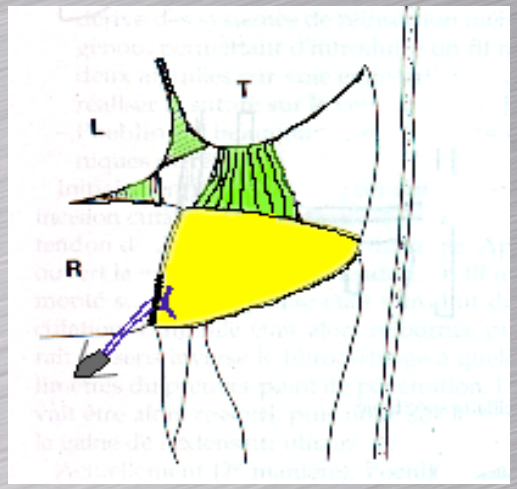


- Normalement, elles sont dans une zone avasculaire et ne devraient pas pouvoir cicatriser
- Il semble que la réinsertion avec cicatrisation soit possible
- Très difficile, utile ?

Les lésions de type 1D

- Brochage des avulsions radiales (fragment osseux)
- Aiguilles de suture méniscale
- Ancres de suture
- Kits de réinsertion méniscale ?





Résultats

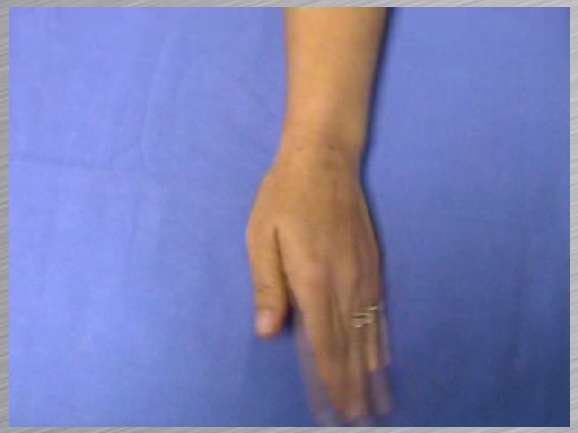
- Série de Christophe Mathoulin de lésion 1B réinsérées selon la technique outside-inside
- 78 patients, âge moyen 33 ans, sportifs une fois sur deux
- Recul 42 mois (9-62)

Résultats suture 1B

- Indolores (68), Peu douloureux (7), Douleur modérée (7), intense (0)
- Force entre 75 et 100% (65), force < 75% (13), force < 50% (0)

PRONO-SUPINATION

- **> 120° : 75**
- **60° à 120° : 3**
- **< 60° : 0**



4 complications: douleurs sur la zone de suture

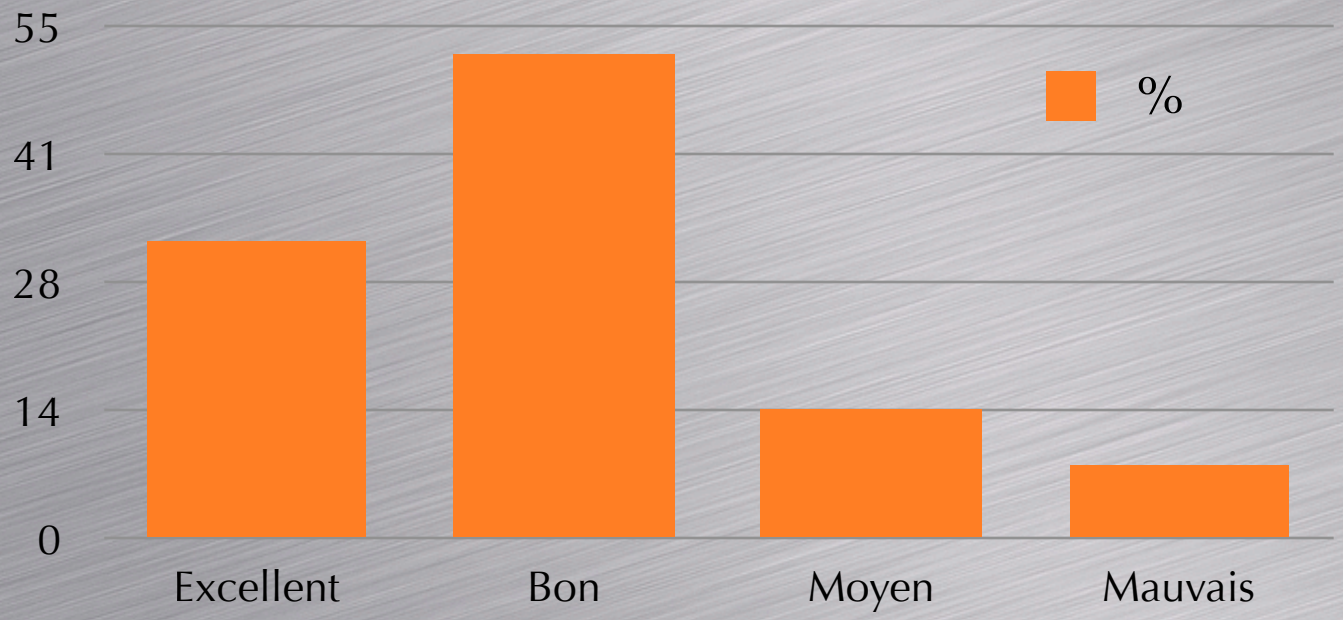
Résultats fonctionnels

	Pre-op	post-op	controlateral
Flexion	52,26	64,82 (p<0,01)	67,50 (p=0,26)
Extension	64,43	71,07 (p<0,01)	73,57 (p=0,35)
Inclinaison radiale	20	27,32 (p<0,01)	28,75 (p=0,48)
Inclinaison ulnaire	30	37,14 (p<0,01)	38,85 (p=0,27)
Pronation supination	0-172	0-178 (p<0,02)	0-179 (p=0,16)
Force (Grasp)	22,46	35,6 (p<0,01)	38,57 (p=0,18)

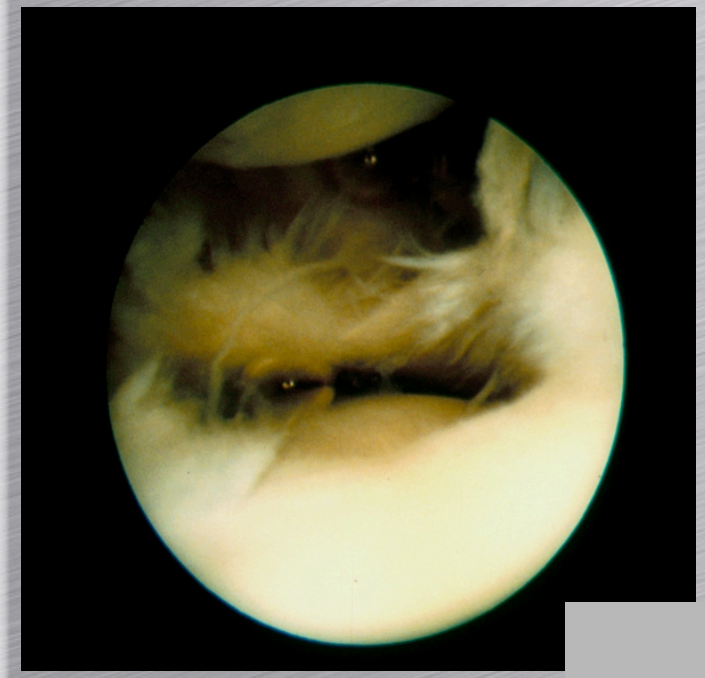
Institut de la Main

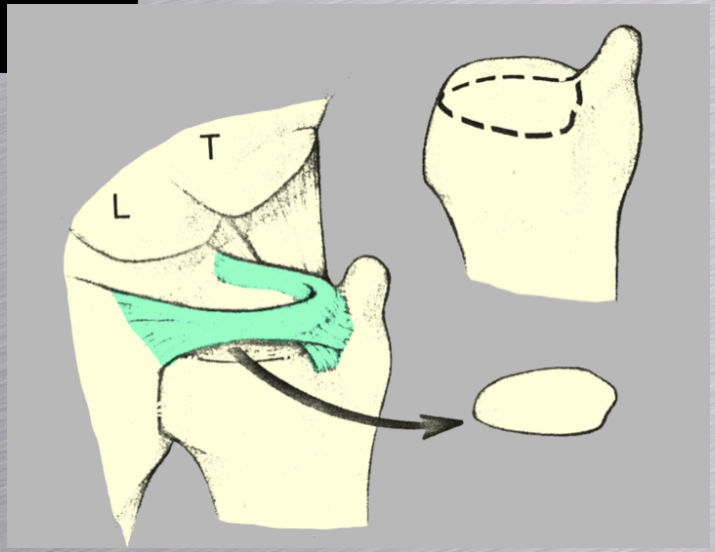
Résultats

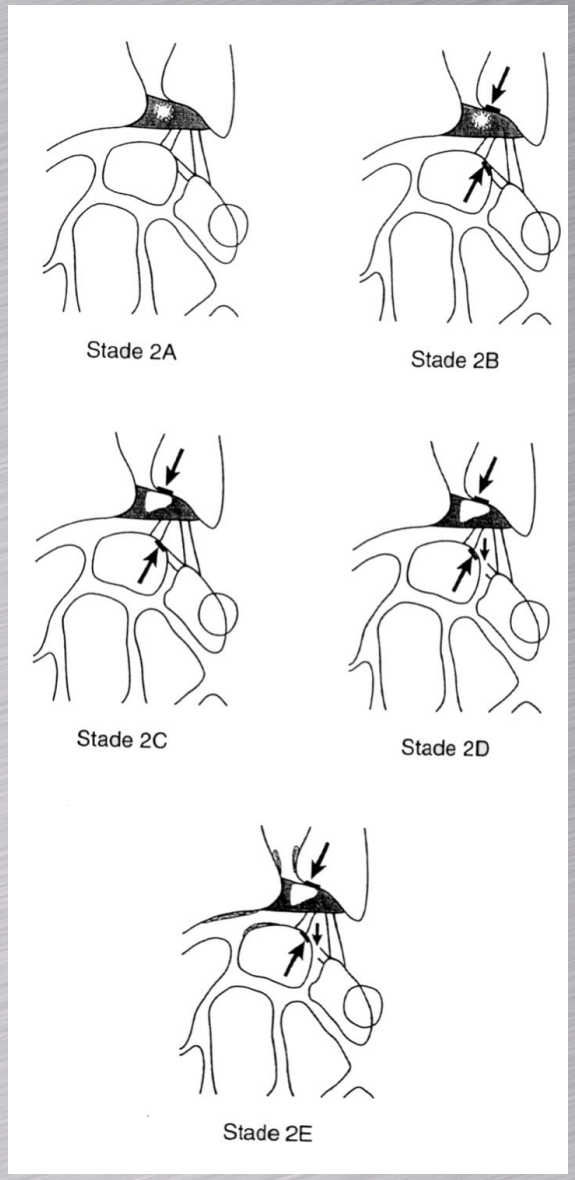
- Série de Fontes, 194 lésions de classe 1
- âge moyen 34 ans
- 40% accidents sportifs



Classe 2 = dégénérative

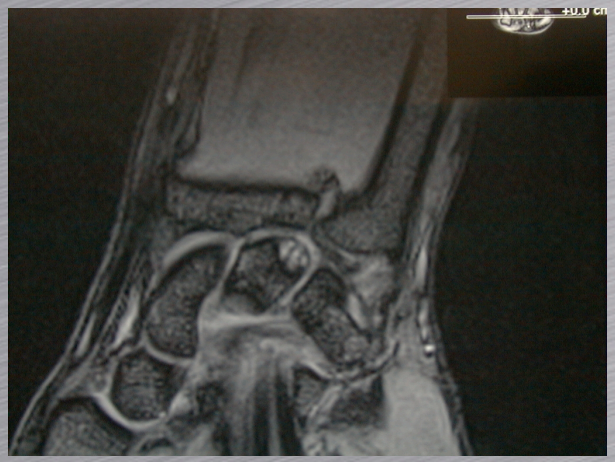


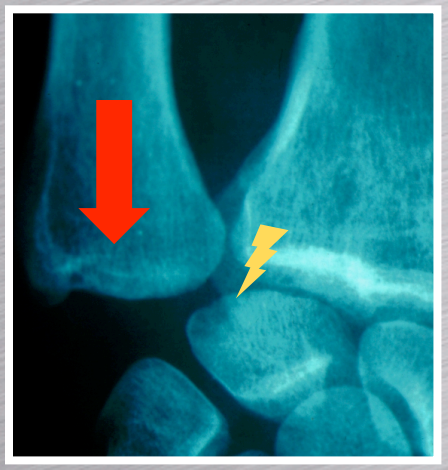


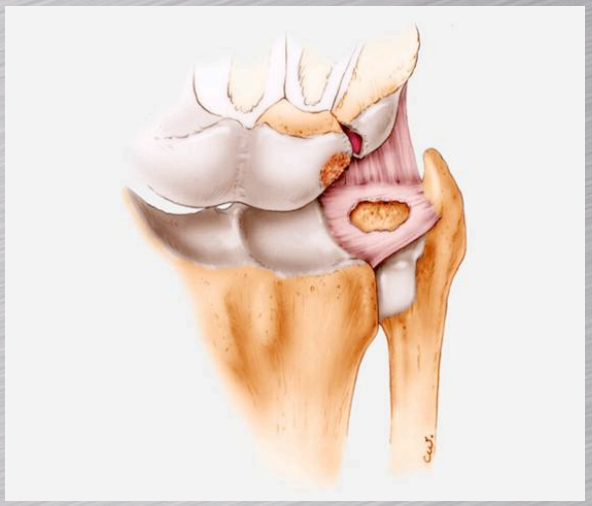


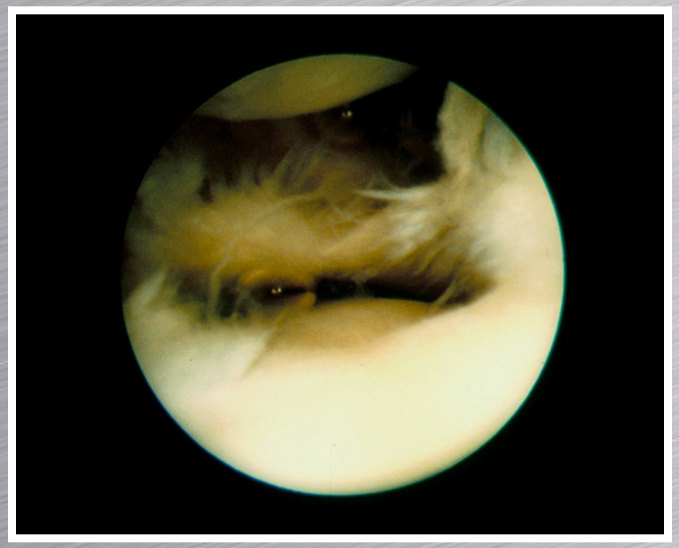
Principe

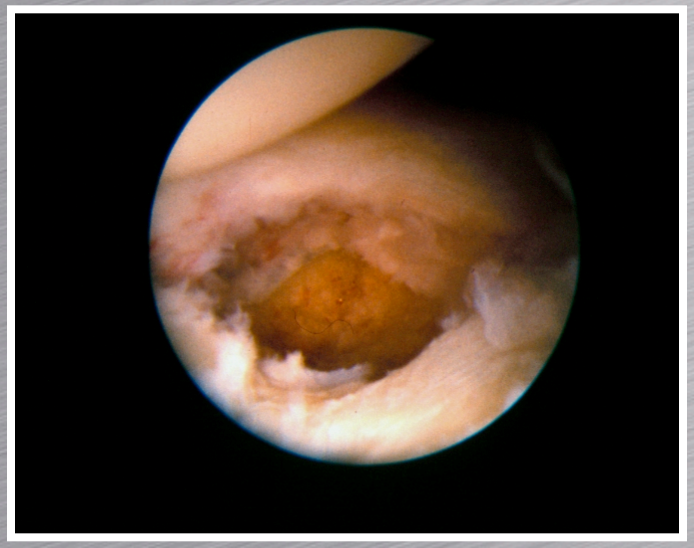
- Limiter l'hyperpression en racourcissant l'ulna à travers le TFCC (aminci ou perforé - classe 2B/2C)
- Débrider également une perforation luno-triquetrale associée (classe 2D)





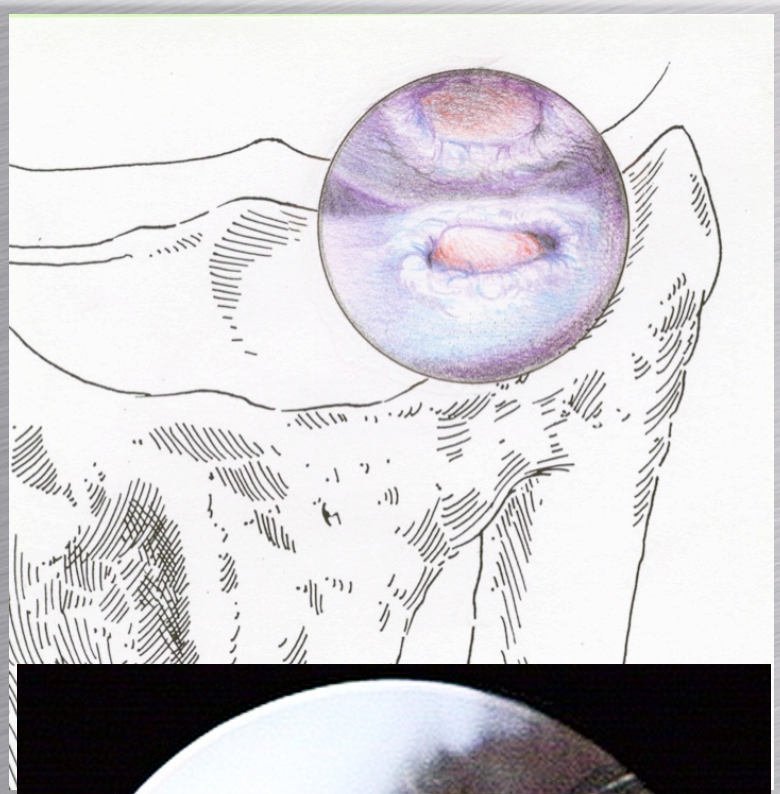


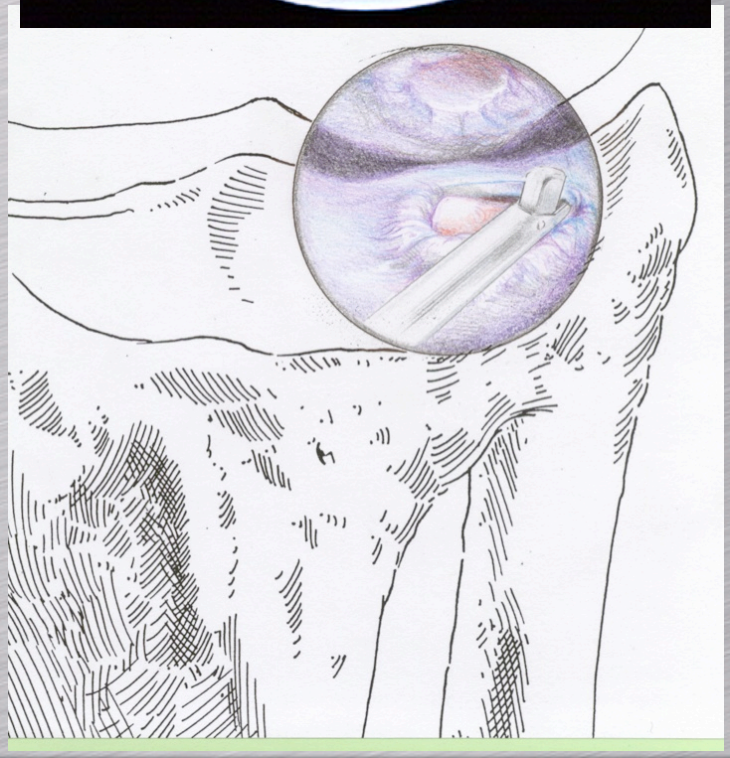


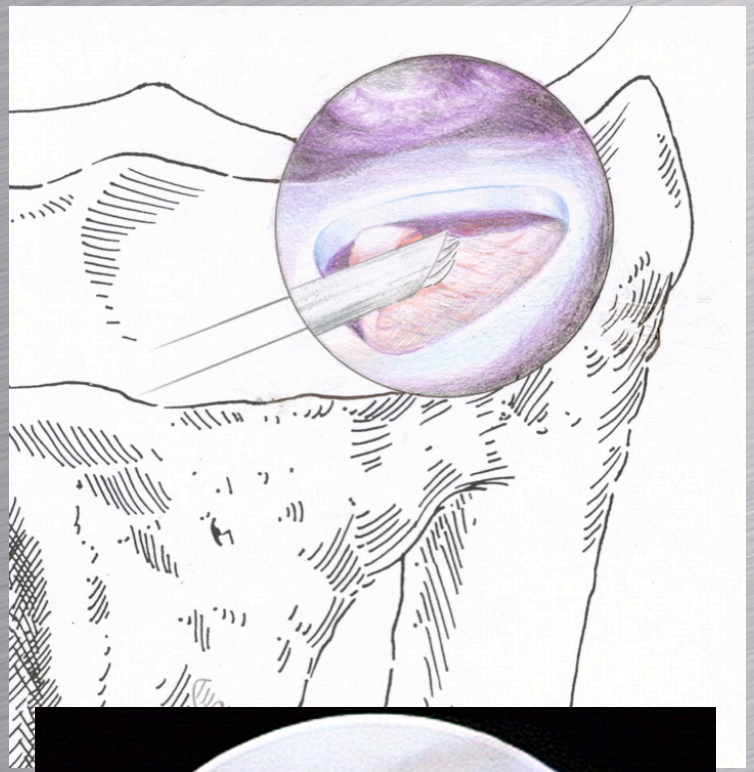


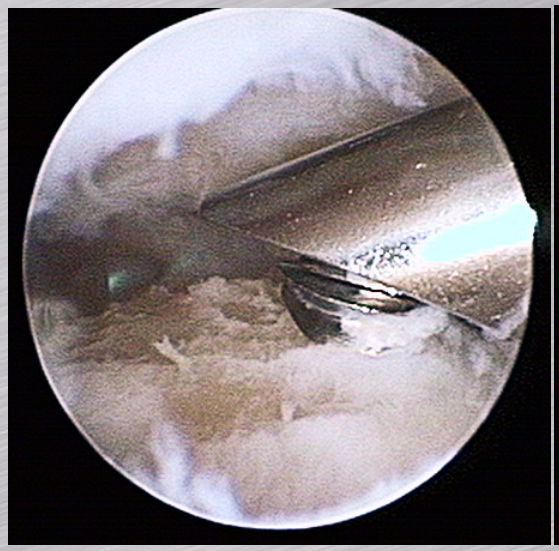
Technique

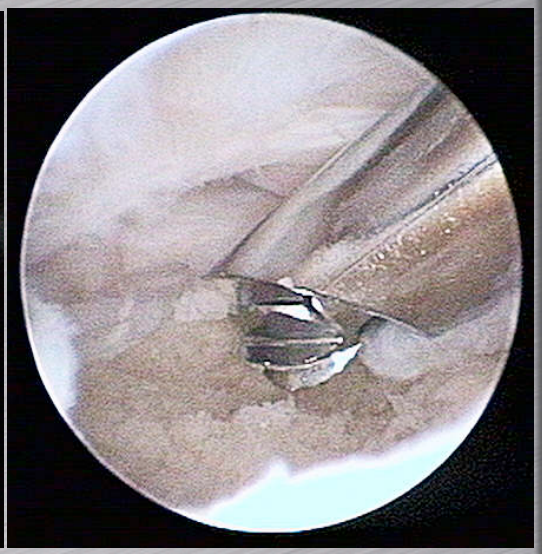
- Scope par voie 3/4
- Fraise par voie 4/5 ou 6R
- Utiliser la pronosupination pour faire tourner la tête et réséquer de façon harmonieuse +++
- Contrôle scopique de la qualité de la résection

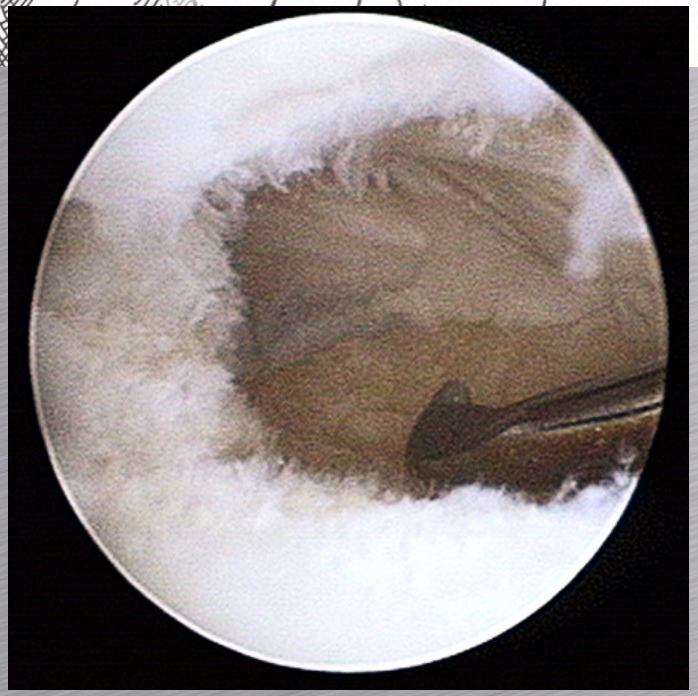


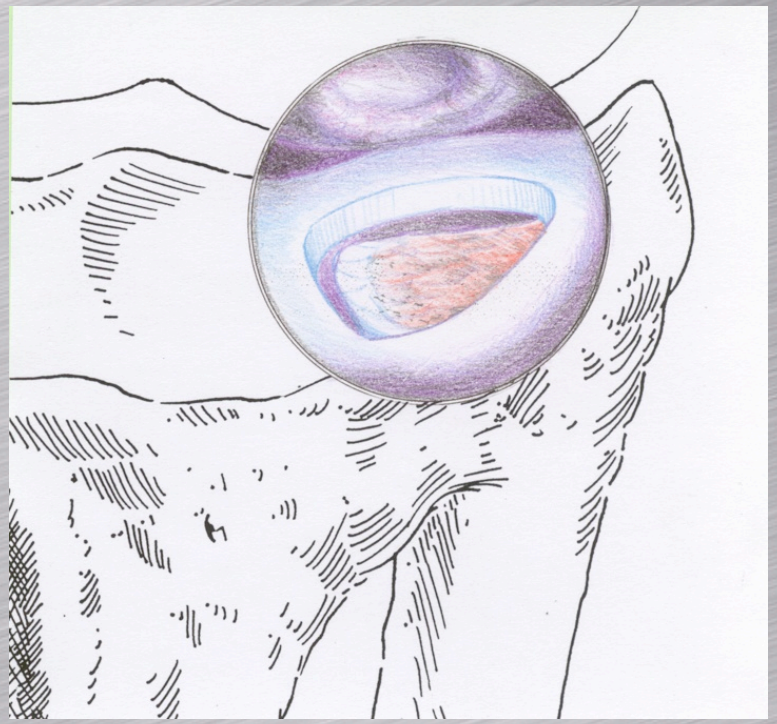




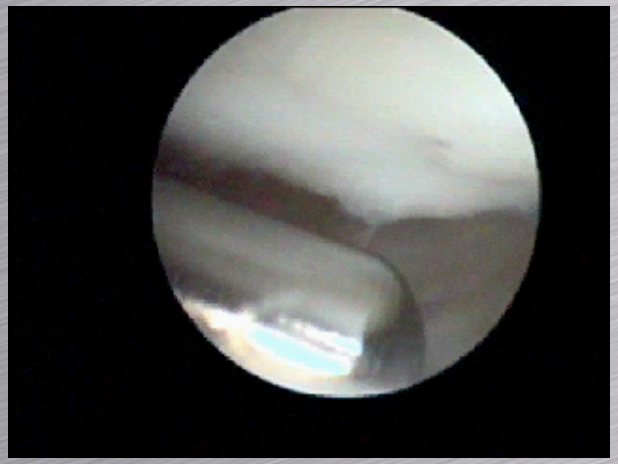




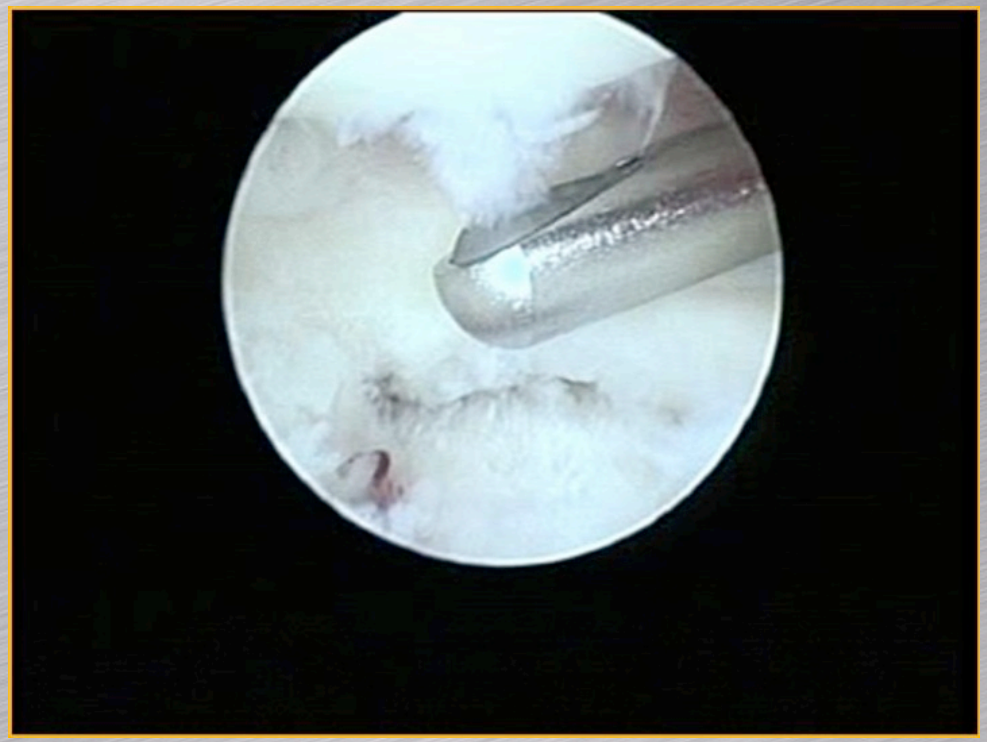




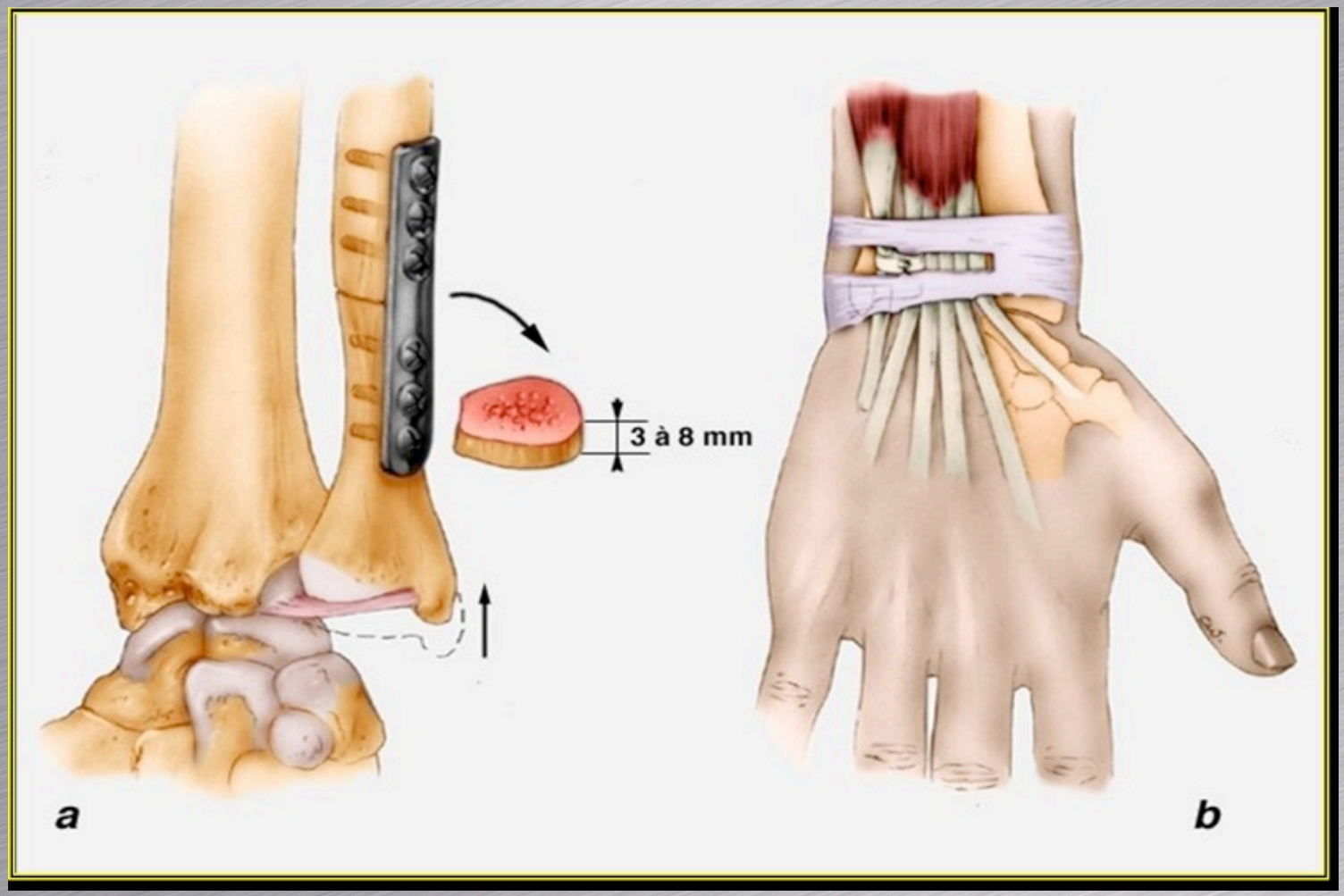
Le Wafer arthroscopique



- Ne pas oublier de débrider les lésions luno-triquetrales associées

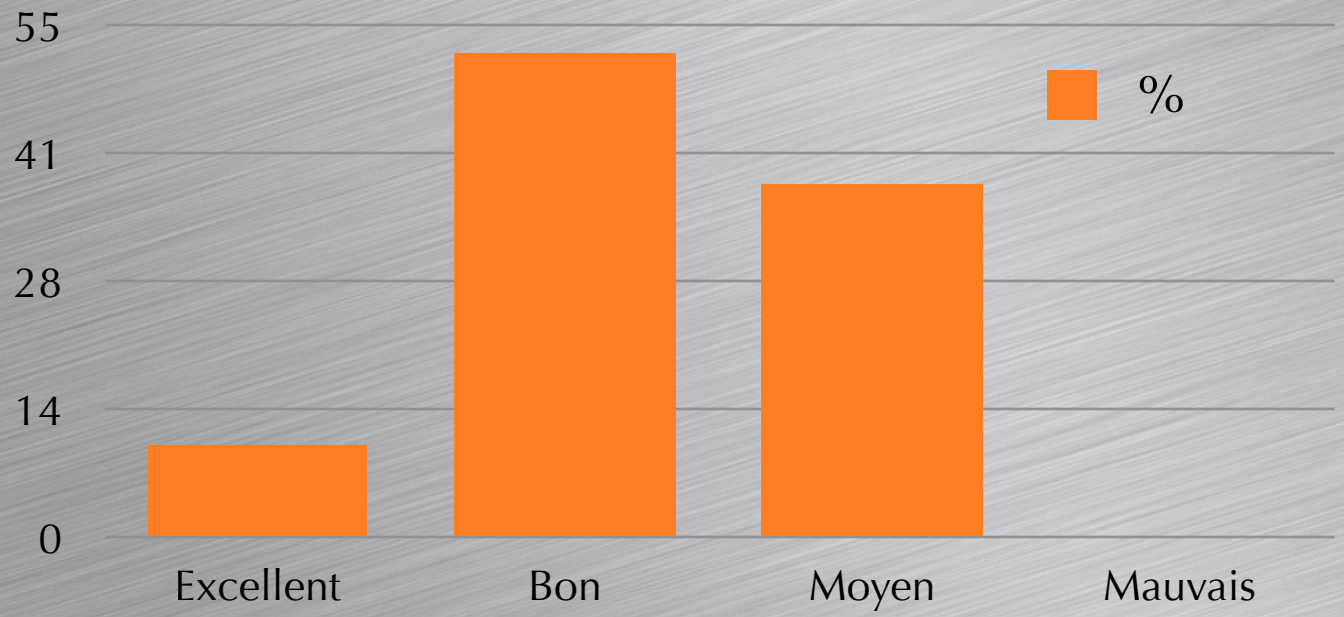


- Si l'ulna plus est > à 3 mm, un accourcissement de l'ulna selon Milch est plutôt préféré



Résultats

- Série de Fontes, 54 cas
- âge moyen 53 ans, 70% de femmes
- Variance ulnaire + 2 mm



Osterman

- 52 patients
  - 25% ont eu un Wafer
- Indolore 73%, amélioré 12%
- 100 % amélioration de la mobilité
- Amelioration de la force

Conclusion

L'arthroscopie est une technique irremplaçable

dans le traitement des lésions du TFCC,

qu'elles soient traumatiques ou dégénératives