



Radiofréquence: applications pratiques dans les douleurs chroniques Genou-Épaule

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9e symposium | Vendredi 10 – Samedi 11 octobre 2025, Caen

LIENS D'INTÉRÊT

ABBOTT



AGUETTANT



B-BRAUN



BRANCHET



GENERAL ELECTRIC

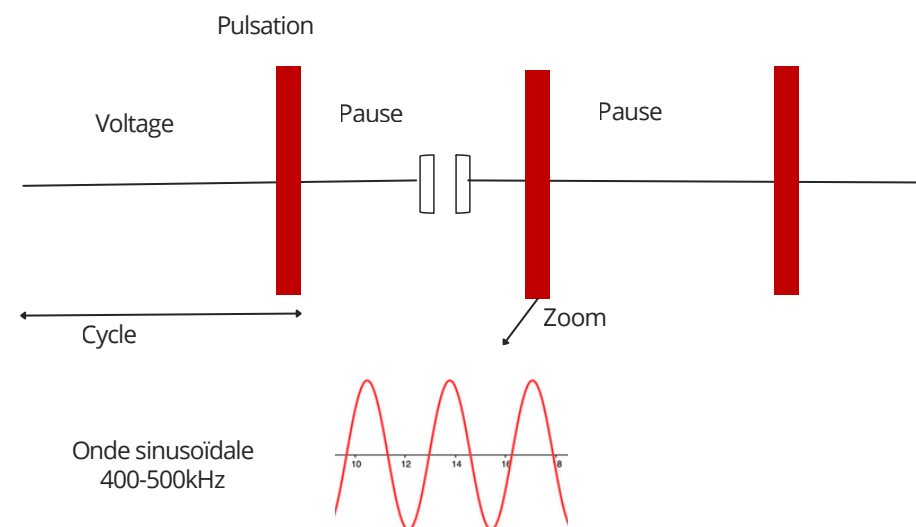


Introduction

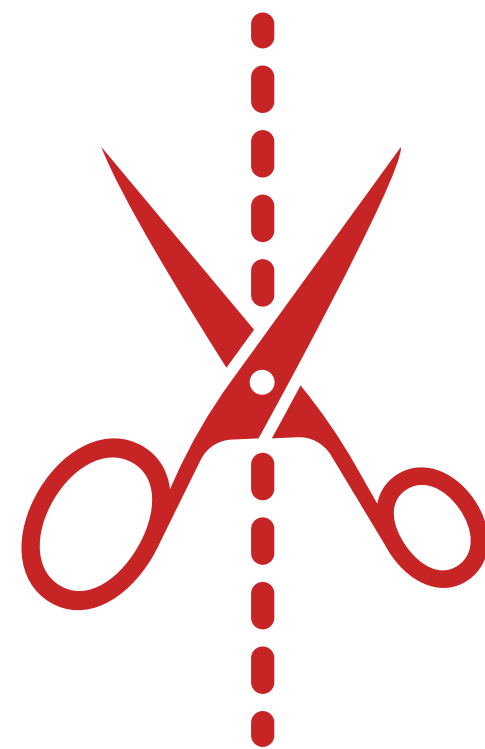


**Conservatrice
Neuromodulation**

**RF pulsée 42°C
2Hz, 20ms**



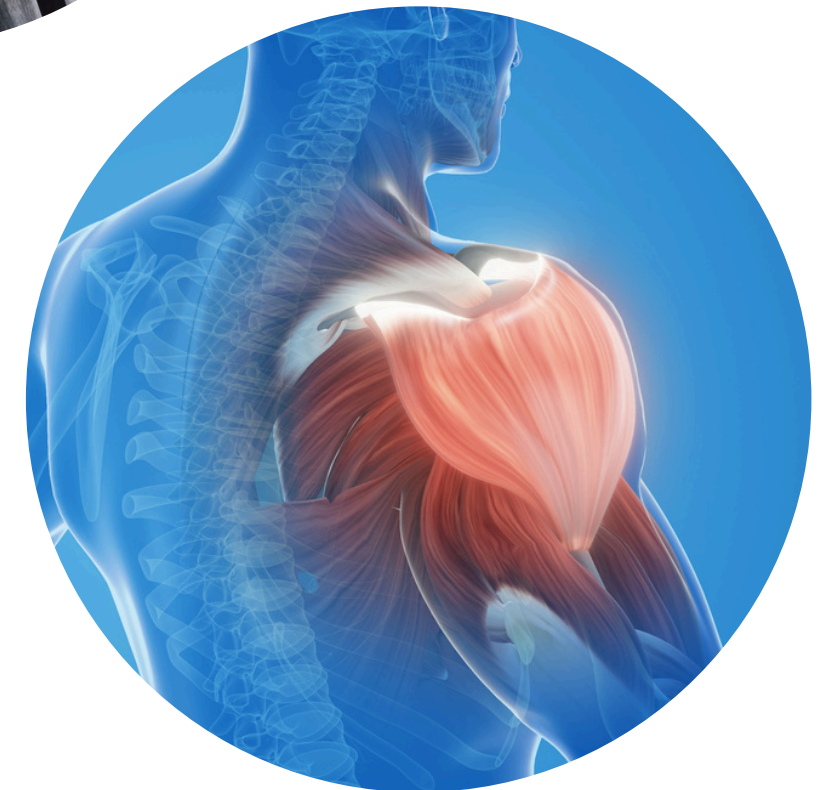
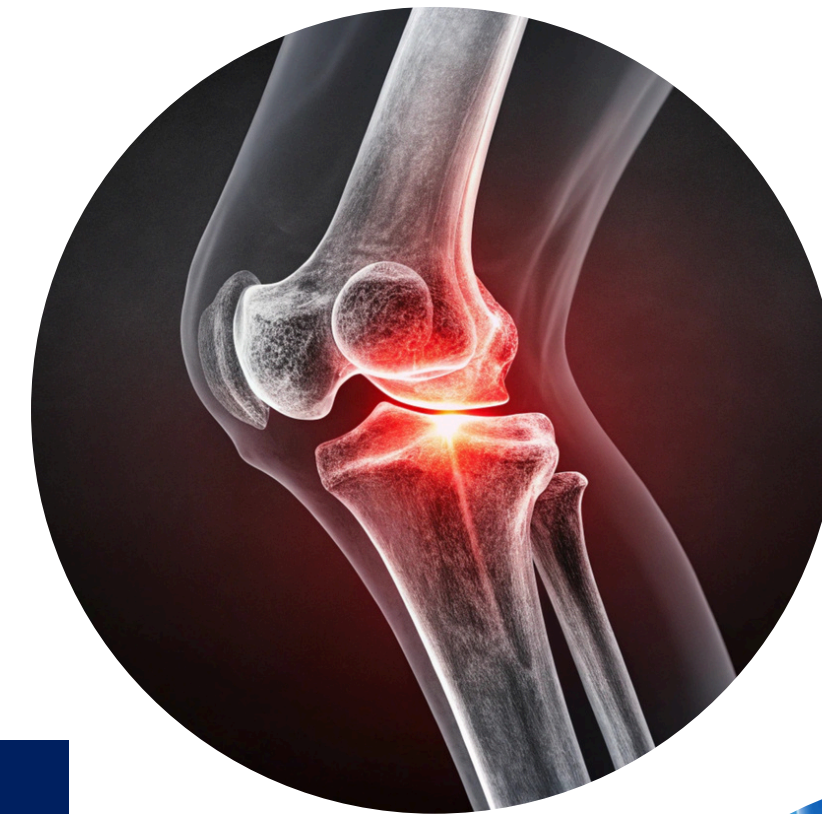
**Cutoff
45°C**



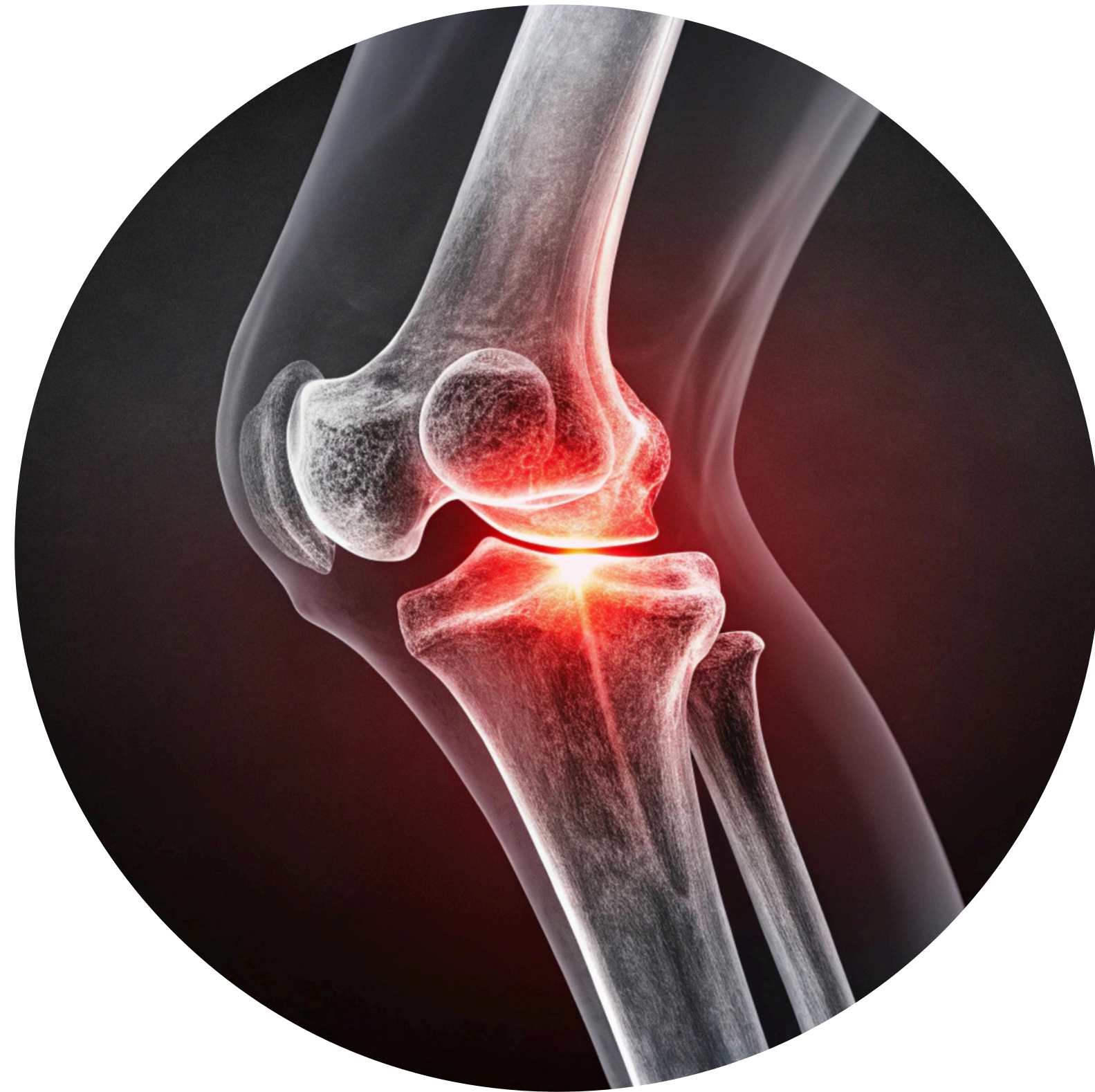
**Destructrice
Neurolyse**

**RF
conventionnelle**

80°C



**Bonnes cibles
Bons candidats
Niveaux de preuve**



Anatomie d'une cible

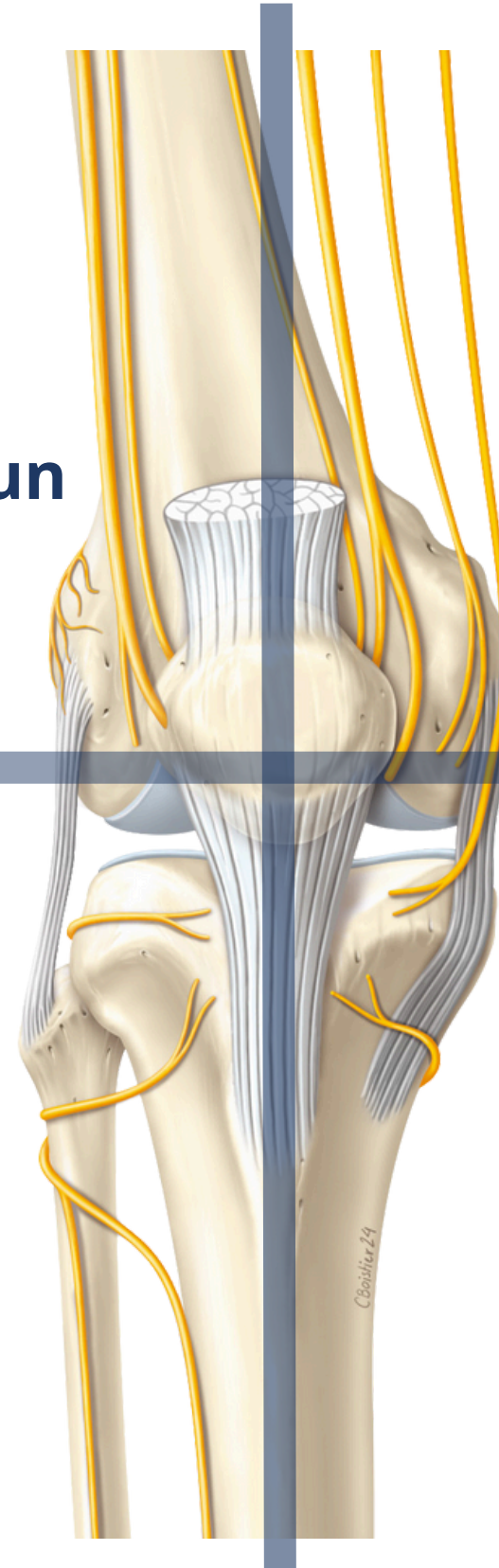


Nerf du vaste latéral
Branche latérale du NVI
Nerf géniculé supéro-latéral
Branche articulaire du nerf fibulaire commun

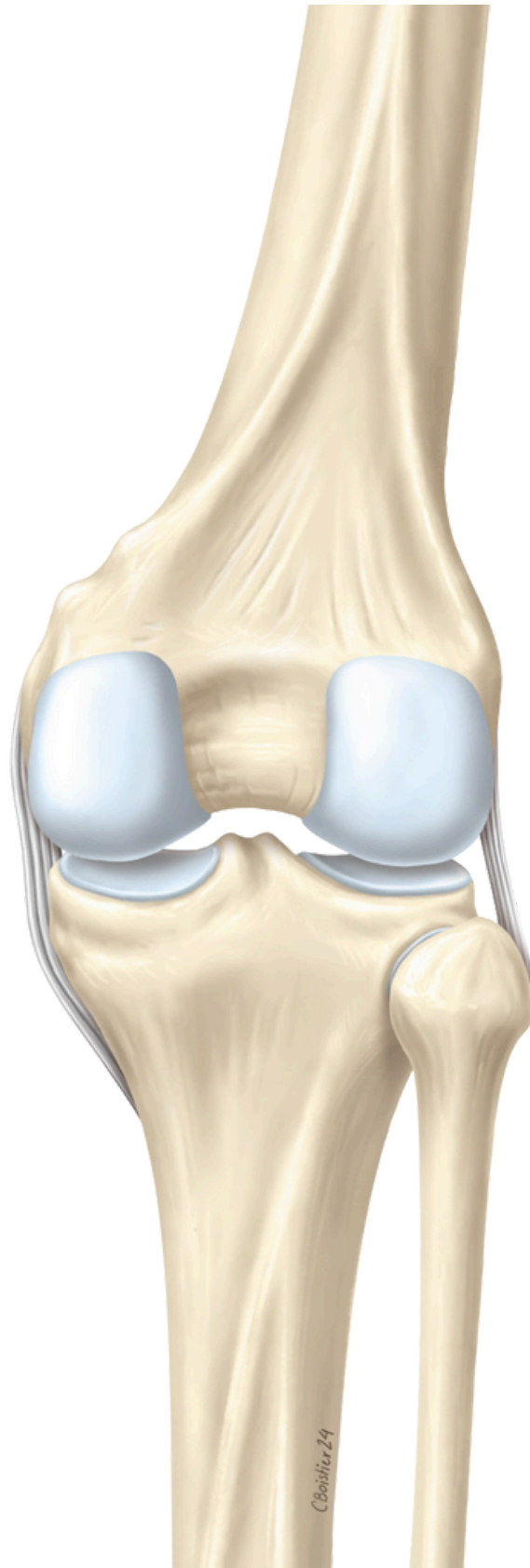
Nerf du vaste médial
Branche médiale du NVI
Nerf géniculé supéro-médial

Nerf géniculé inféro-latéral
Branche récurrente du nerf fibulaire

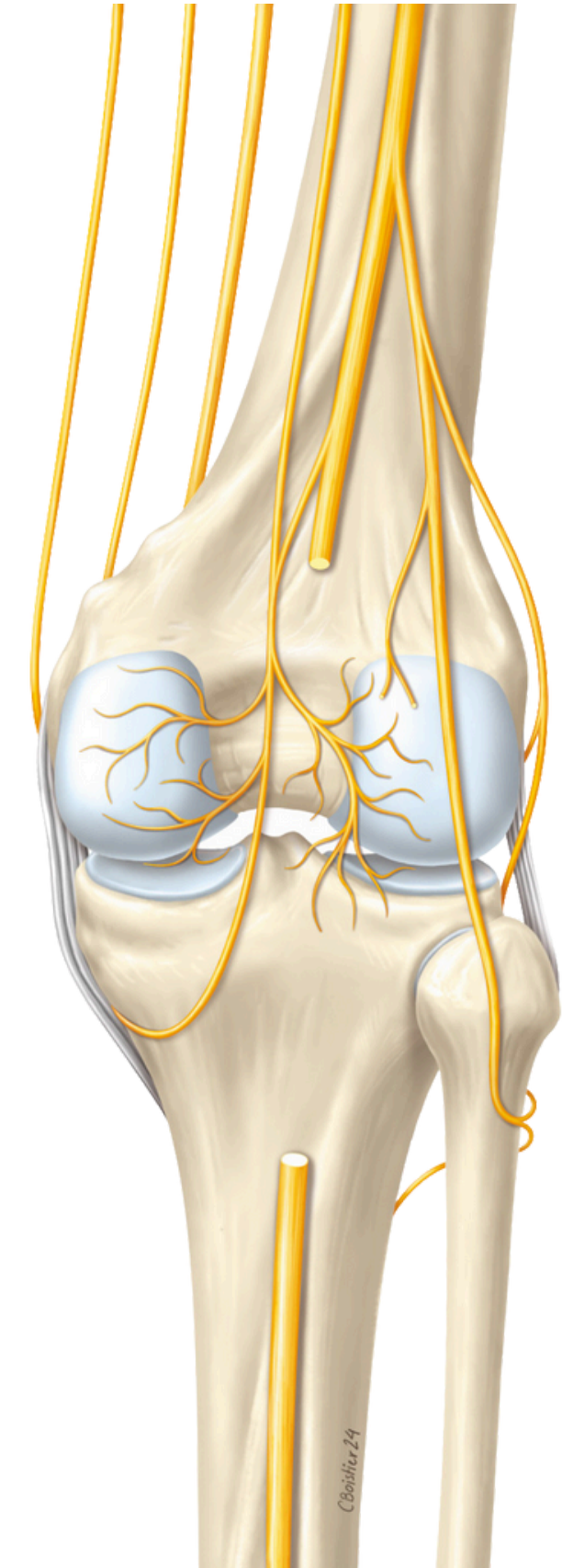
Nerf géniculé inféro-médial
Branche infrapatellaire du nerf saphène



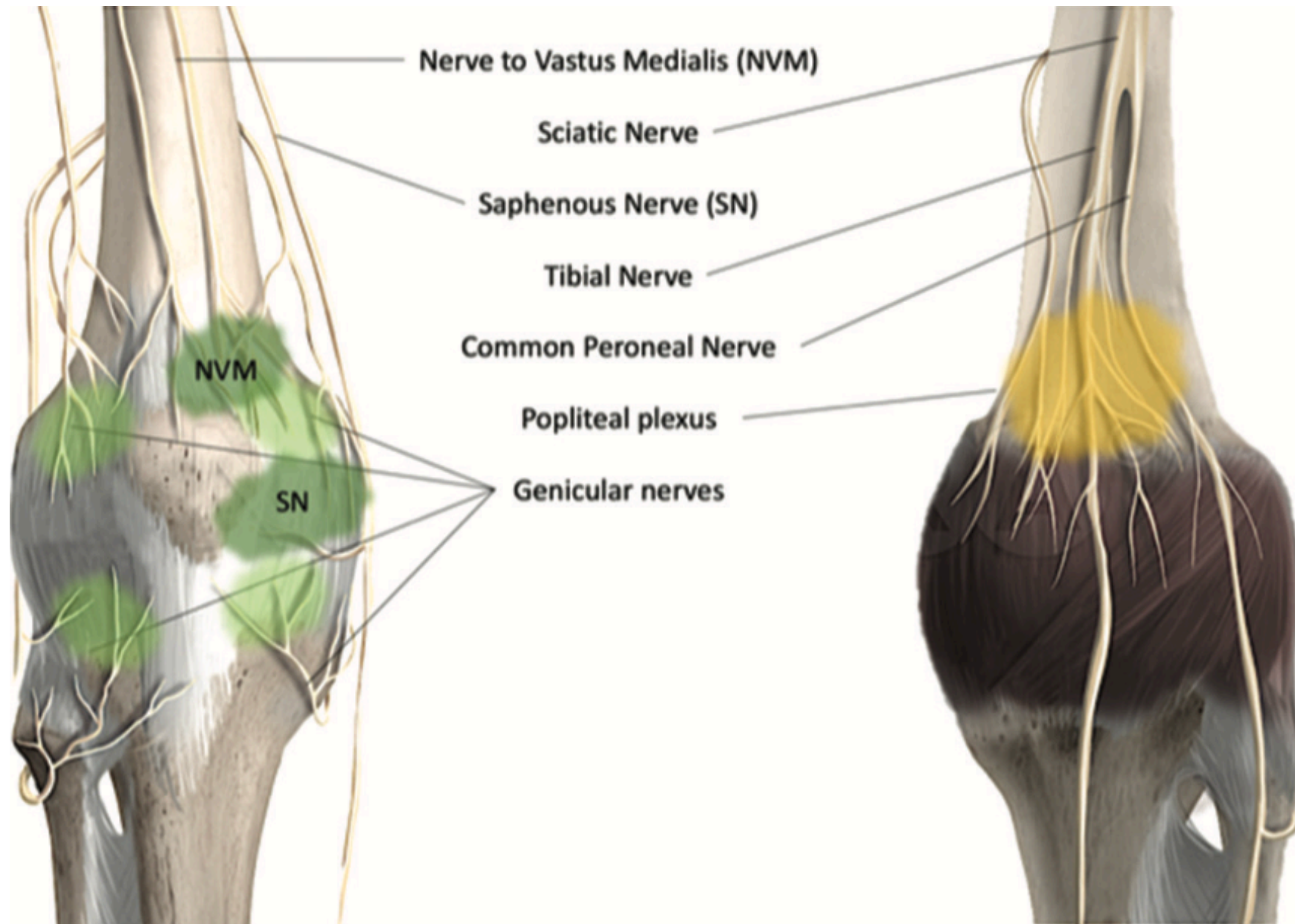
Anatomie d'une cible



Nerf sciatique
Branche tibiale
Branche fibulaire
Branche postérieure N obturateur

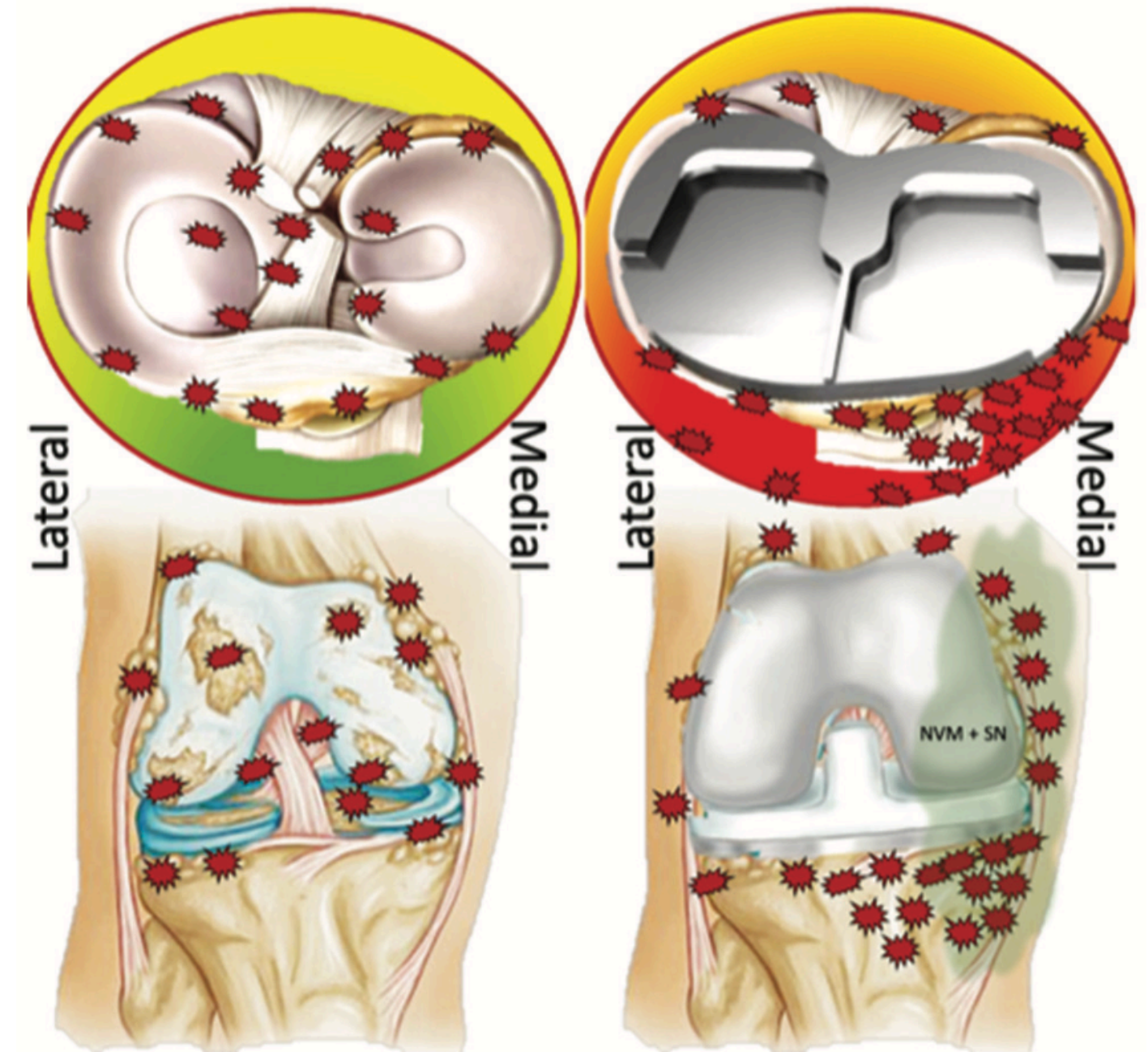


Anatomie d'une cible



**Innervation sensitive
impactante**

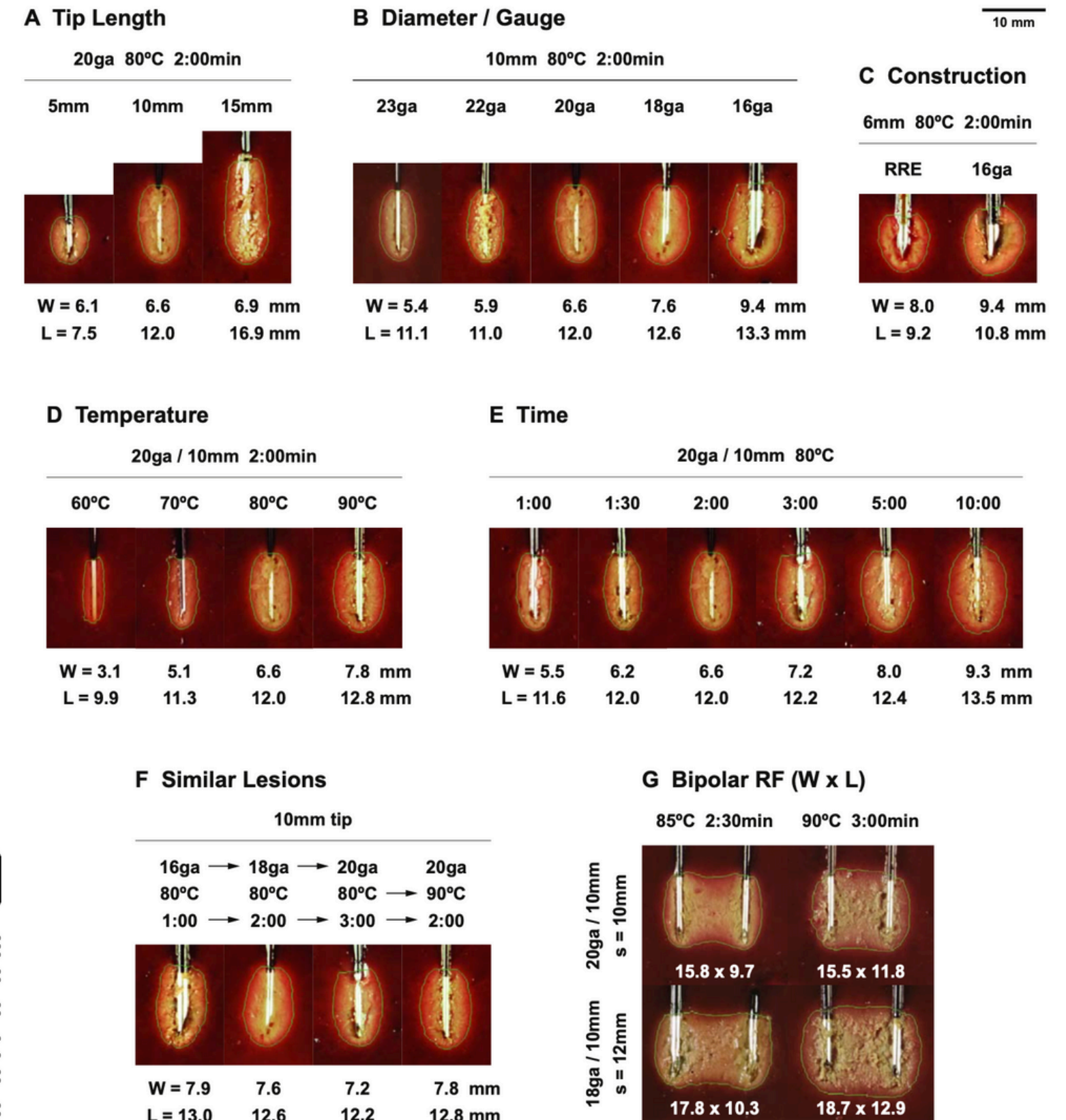
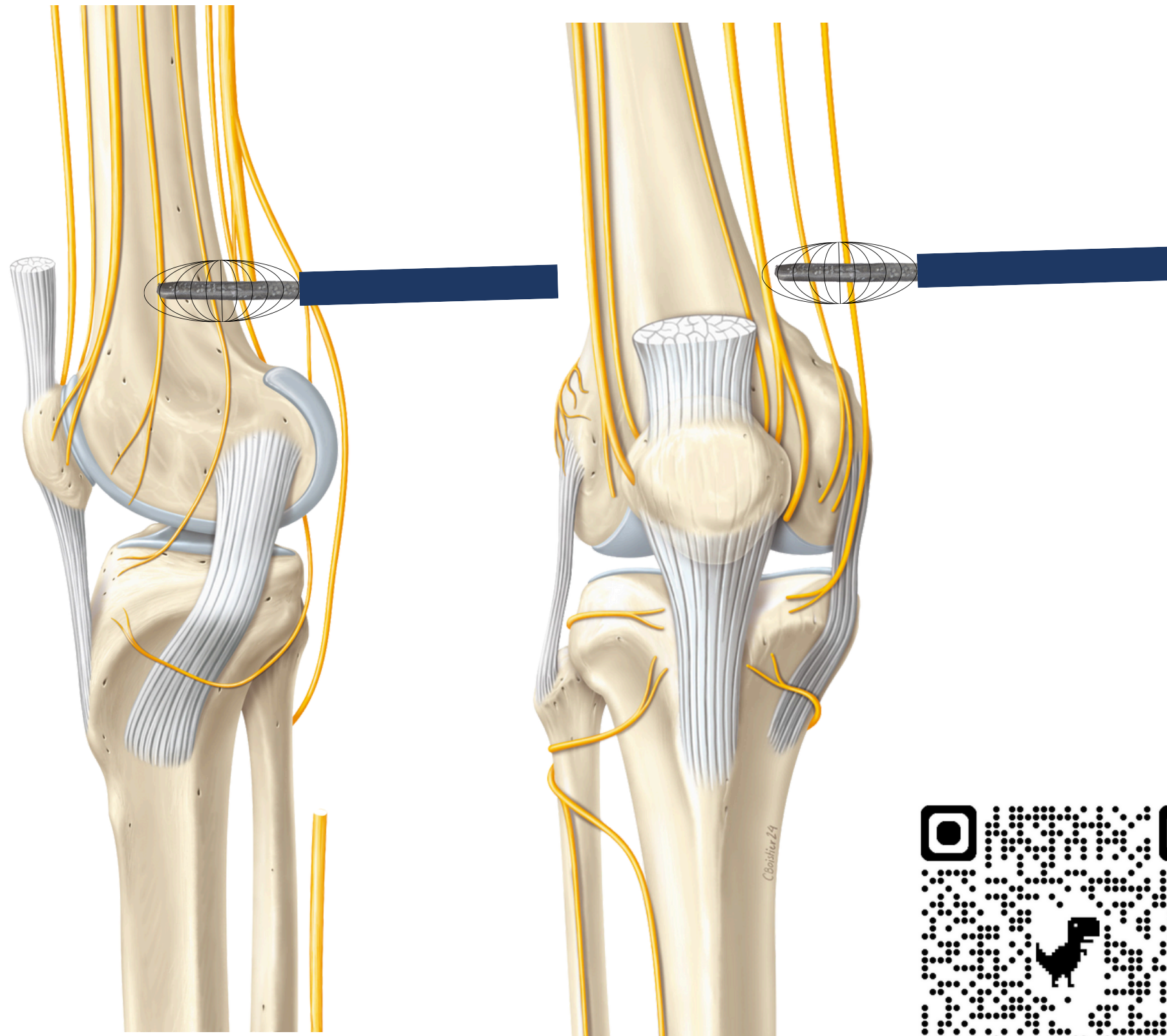
*Fascial plane blocks for postoperative pain management after
fast-track total knee arthroplasty: A narrative review, Saudi J Anesth 2025*



Pré vs post PTG

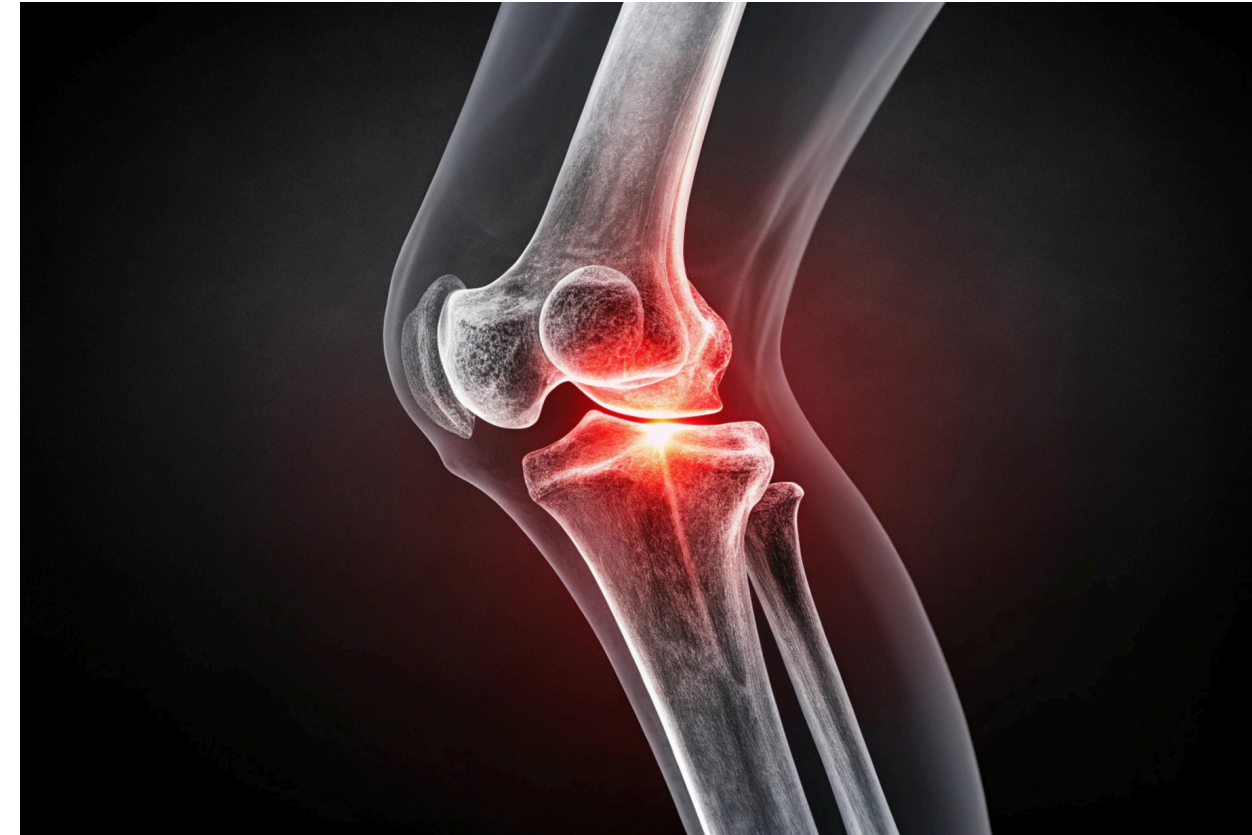
Société Française de NeuroModulation | 9e symposium 2025

Application concrète



Pour qui?

Gonarthrose



Douleur neuropathique

Douleurs postopératoires mécaniques chroniques



7 études
437 patients

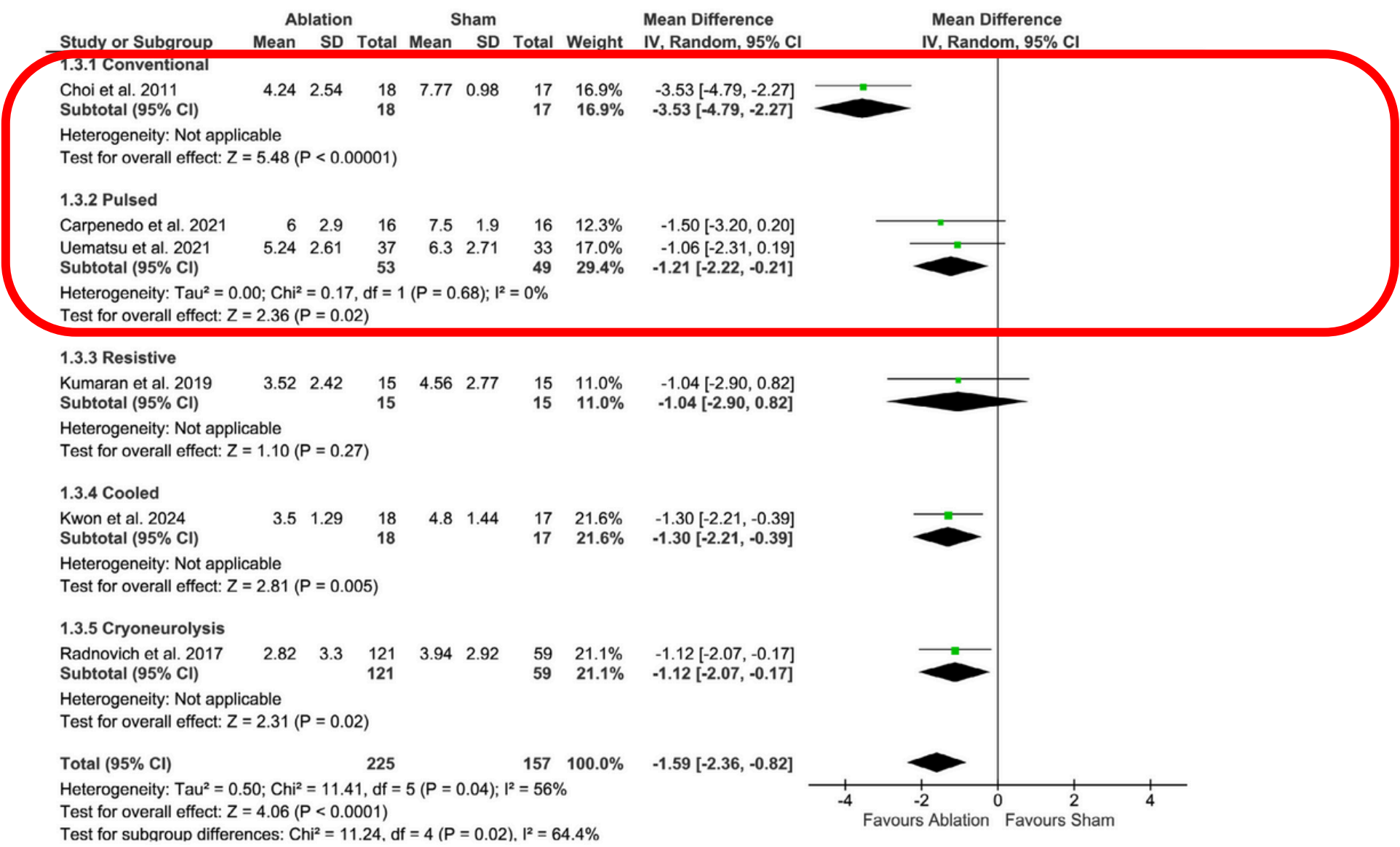


FIGURE 3 | Forest plot evaluating the pain in the 12-week follow-up.

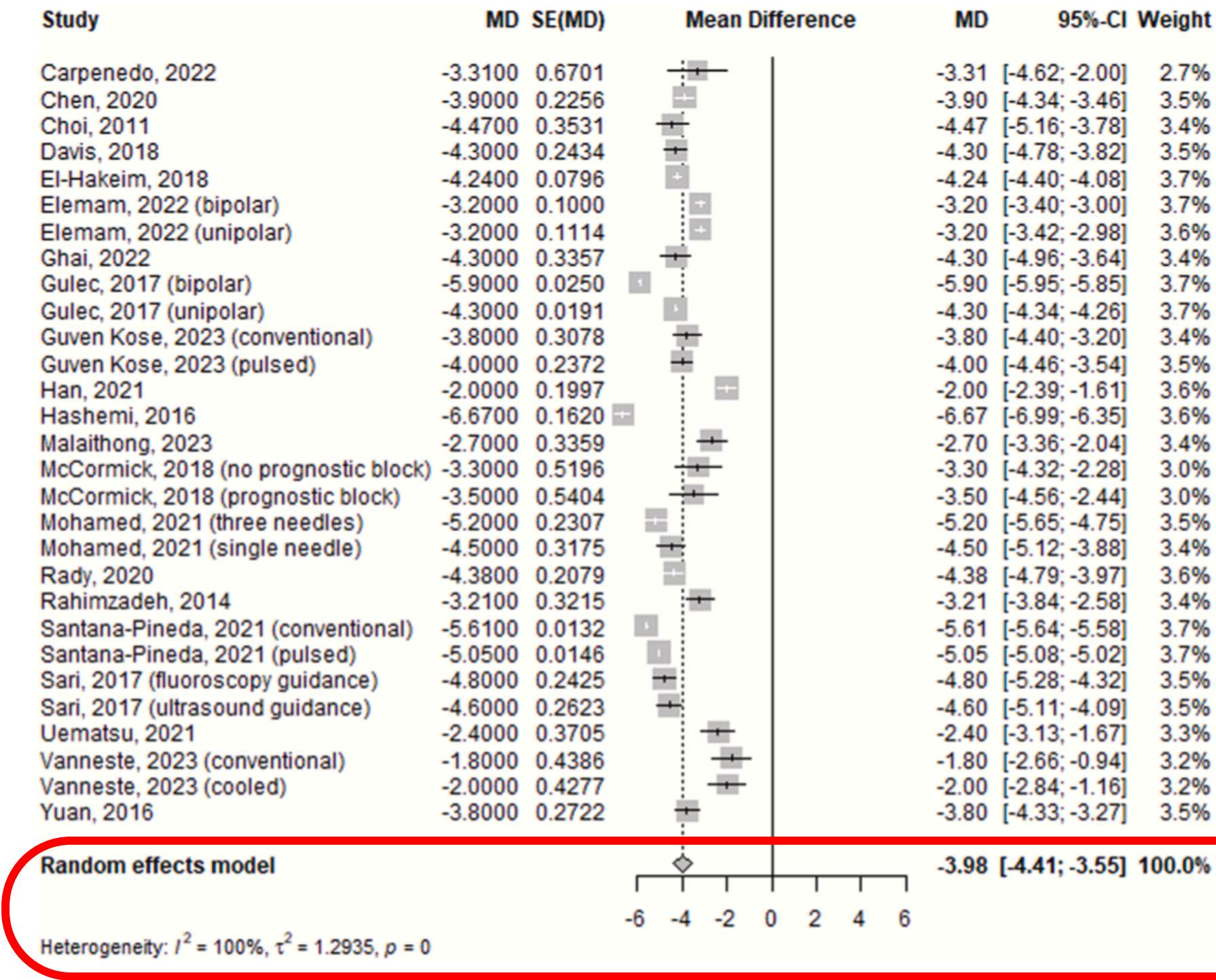


Les preuves

Gonarthrose

21 RCT

1100 patients



EN -4 à 1 mois

Les preuves



Gonarthrose

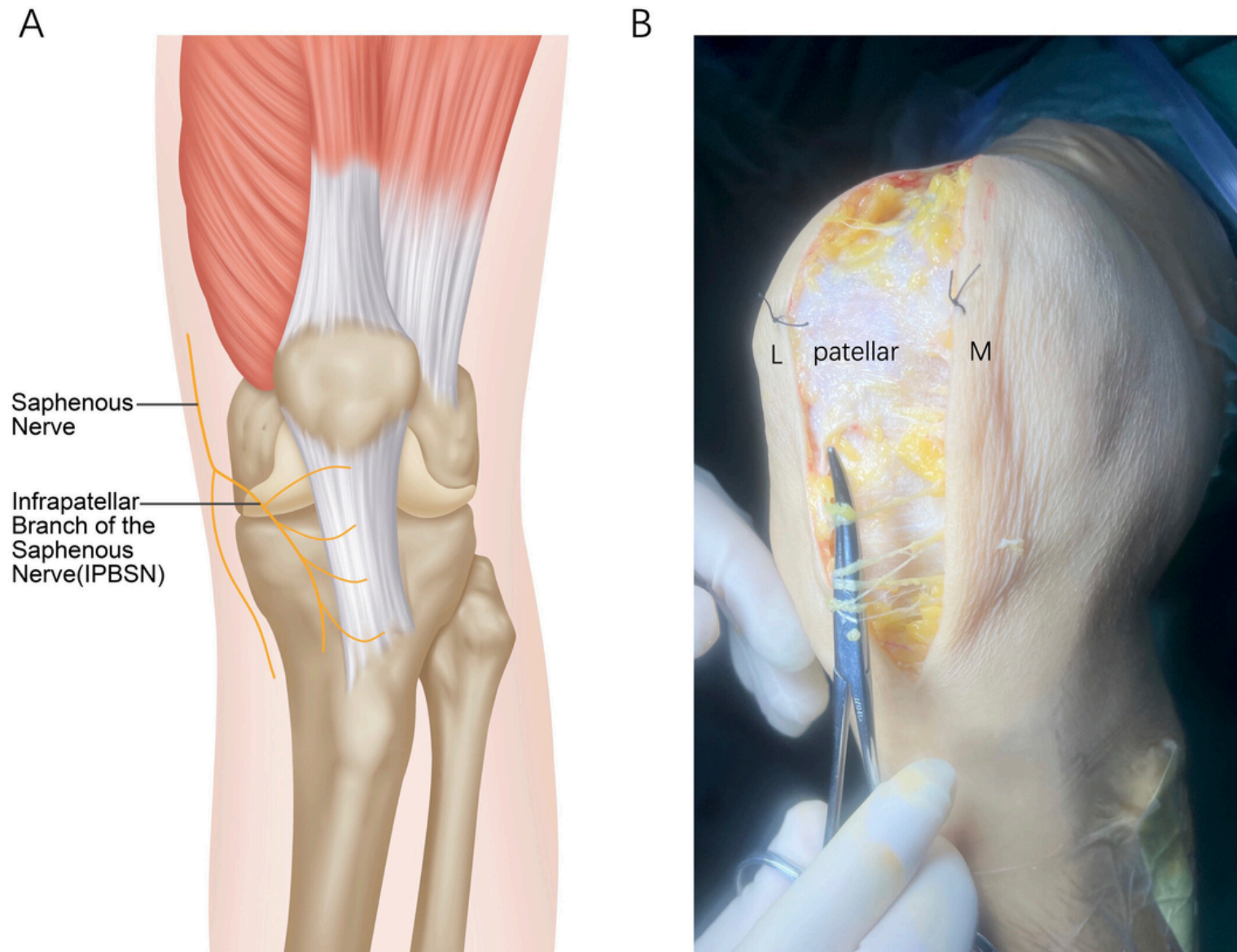
Méta analyses en réseau
21 RCT – 1818 patients
8 RF traitements
6 injections intra articulaire
AINS – Exercices - Placebo

Cooled RF M3	VAS	WOMAC
Placebo	-4 (-5;-3)	-32 (-41;-22)
Exercice	-4 (-4;-3)	-32 (-28;-27)
AINS	-2.6 (-3;-2)	-24 (-29;-19)
Corticoïdes intra articulaires	-2.4 (-3;-1.7)	-17 (-22;-12)
PRP	-1.2 (-2;-0.2)	

Les preuves



Préopératoire / Postopératoire



Peu de données

Les preuves



Gonarthrose



Périopératoire



Les pratiques



Ce qu'il faut améliorer

Prognostic procedures

Prognostic blocks

1 block	105	70.0
2 blocks	37	24.7
No block	8	5.3

First block medication

Lidocaine 1 %	14	9.3
Lidocaine 2 %	34	22.7
Bupivacaine 0.25 %	32	21.3
Bupivacaine 0.5 %	46	30.7
Other	16	10.7

Medication volume per site

≤0.5 mL	38	25.3
1 mL	61	40.7
1.5 mL	14	9.3
2 mL	16	10.7
>2 mL	13	8.7

Positive block response pain reduction

>50 % reduction	66	44.0
60–80 % reduction	26	17.3
≥80 % reduction	50	33.3

Second block medication

Lidocaine 1 %	2	1.3
Lidocaine 2 %	9	6.0
Bupivacaine 0.25 %	9	6.0
Bupivacaine 0.5 %	17	11.3
No second block	113	75.3

Imaging guidance for blocks

Anatomic guidance	1	0.7
Fluoroscopy	116	77.3
Ultrasound	19	12.7
Combination fluoroscopy and ultrasound	6	4.0

Contrast media used for blocks

Yes	63	42.0
No	79	52.7

Treatment/ablative procedure

RFA type

Cooled RFA	18	12.0
Standard conventional RFA	93	62.0
Multi-tined conventional RFA	30	20.0
Pulsed RF	5	3.3
Other	4	2.7

RFA technique

Monopolar	129	86.0
Bipolar	21	14.0



Table 2 (continued)

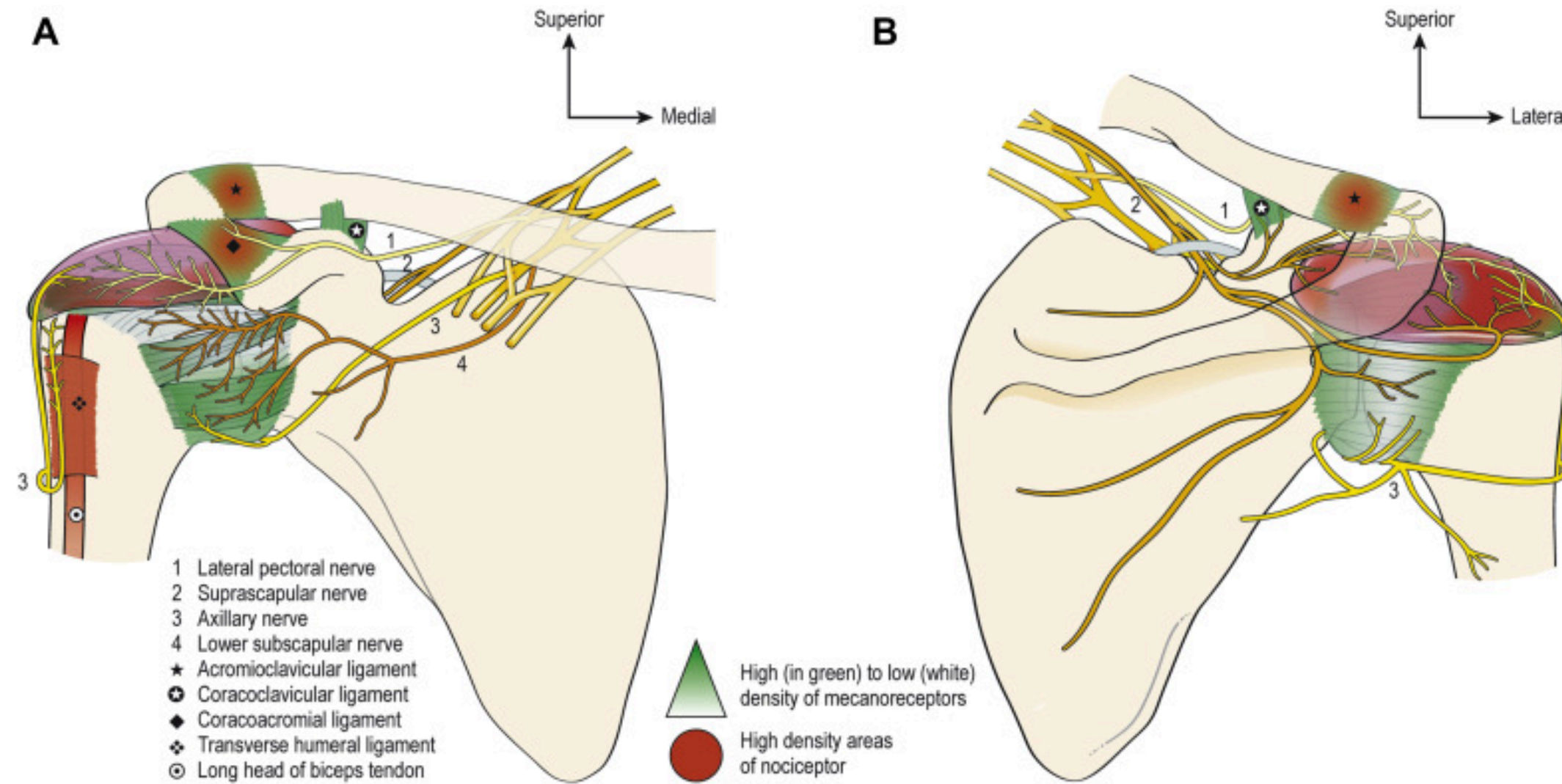
Characteristic	Frequency	%
16g	15	10.0
17g	15	10.0
18g	68	45.3
20g single needle	42	28.0
22g single needle	10	6.7
Other	0	0.0
Nerves		
Inferomedial	146	97.3
Inferolateral	10	6.7
Superomedial	150	100.0
Superolateral	147	98.0
Infrapatellar branch of the saphenous nerve	17	11.3
Recurrent fibular nerve	7	4.7
Nerve to vastus medialis	24	16.0
Nerve to vastus intermedius	17	11.3
Nerve to vastus lateralis	11	7.3
Terminal articular branch of the common fibular nerve	13	8.7
Motor testing		
Yes	86	57.3
No	64	42.7

Generator setting		
<60 °C	2	1.3
60 °C	16	10.7
61–79 °C	10	6.7
80–85 °C	99	66.0
86–90 °C	18	12.0
>90 °C	3	2.0
Other	2	1.3
Minimum duration		
60 s	13	8.7
90 s	101	67.3
120 s	15	10.0
150 s	12	8.0
180 s	7	4.7
Other	2	1.3
Imaging guidance for RFA		
Anatomic guidance	0	0.0
Fluoroscopy	128	85.3
Ultrasound	11	7.3
Combination fluoroscopy and ultrasound	11	7.3

Épaule



Anatomie d'une cible

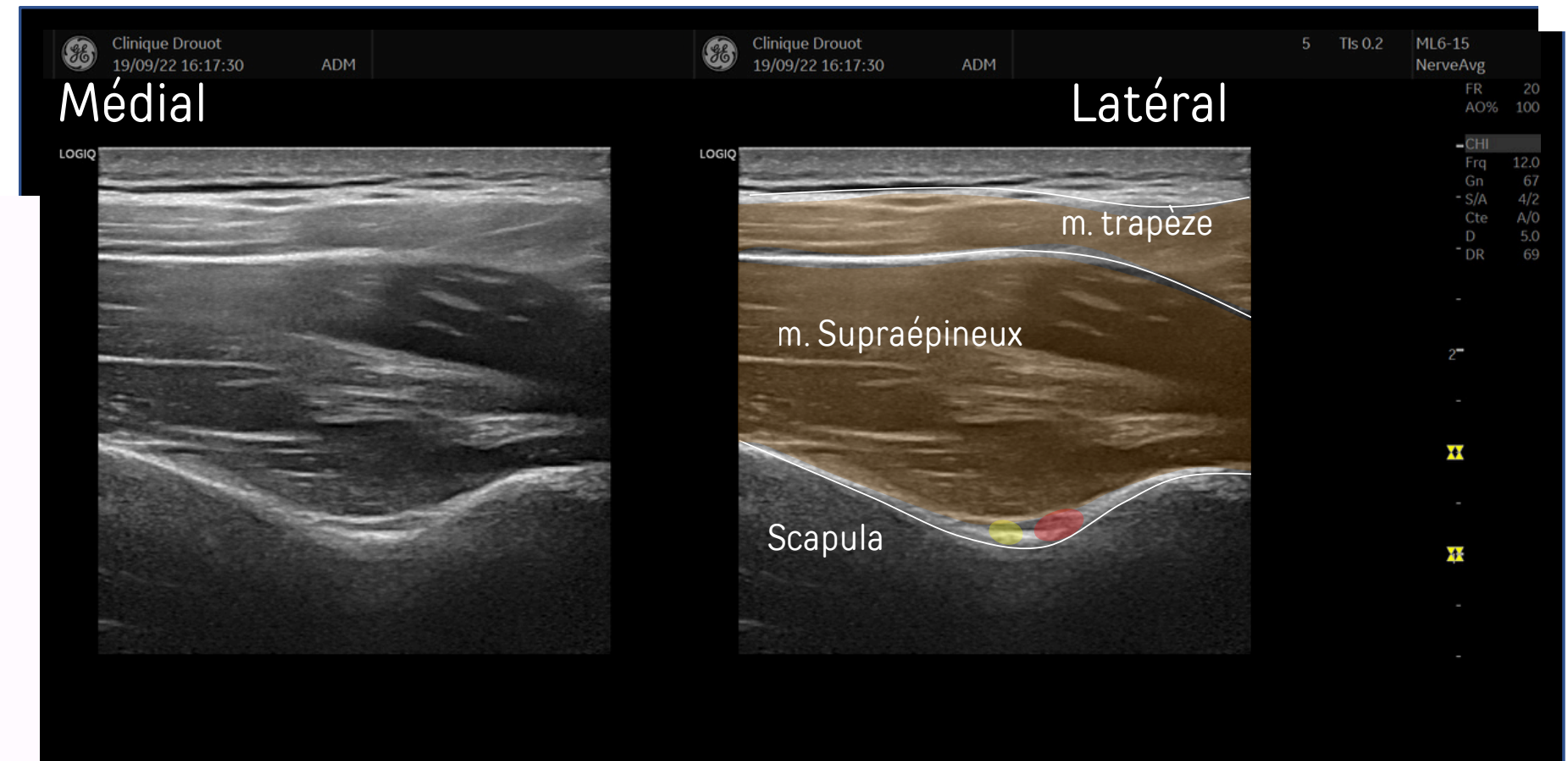
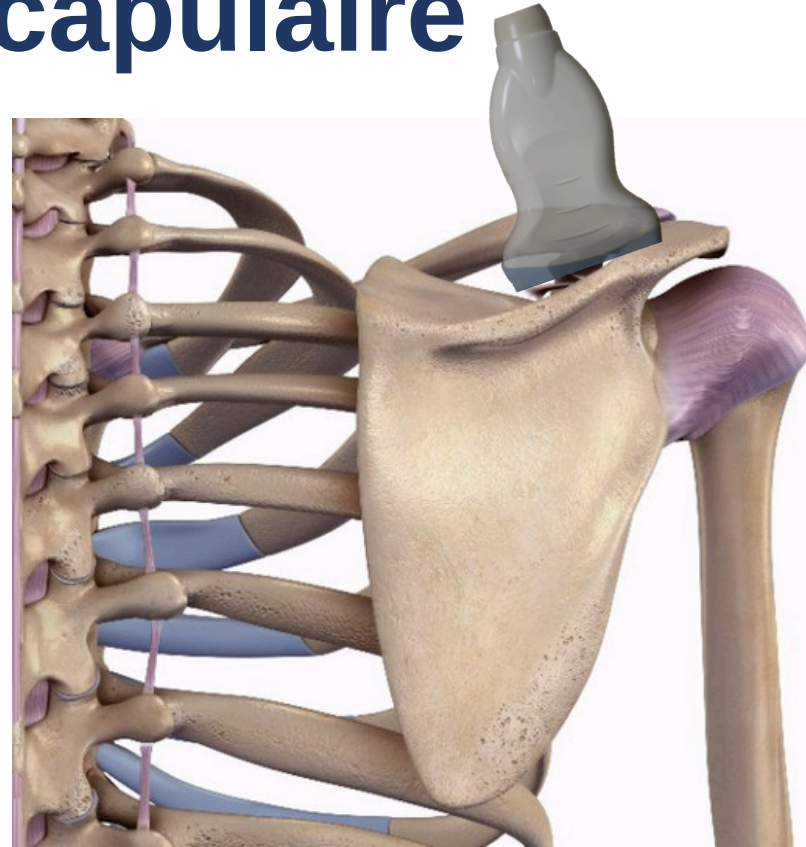


Suprascapulaire
Axillaire
Pectoral Latéral

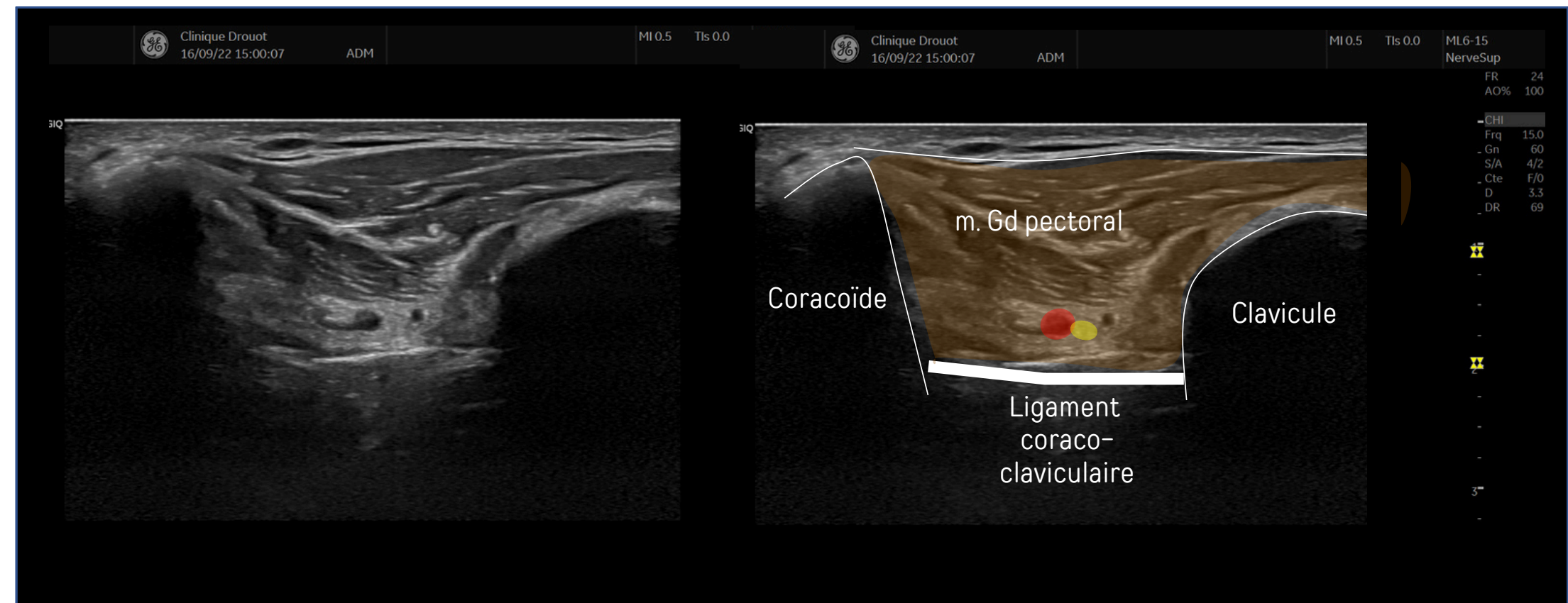
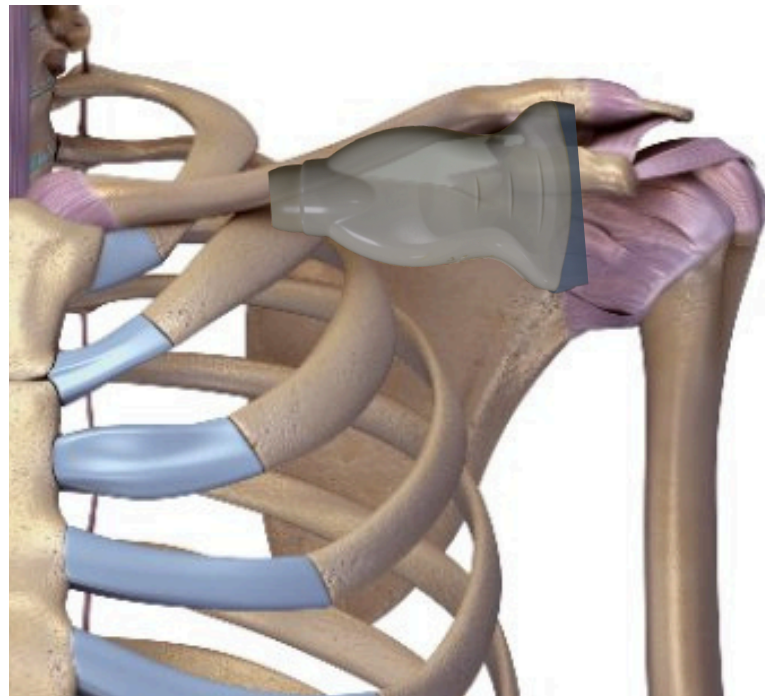
Application concrète



Suprascapulaire



Pectoral Latéral



Pour qui?



Capsulite

Omarthrose

Périopératoire



Les preuves



Capsulite

40 patients

20 PRF (Groupe A)

20 Traitement
standard (Groupe B)

ROM

Table 2 Numeric pain rating scale (NRS) comparisons between groups

	Group A (n = 20)	Group B (n = 20)	p-value
Baseline (I)	8.70 ± 0.8	8.70 ± 1.8	= 0.989
One week (II)	6.20 ± 1.7	7.95 ± 0.4	= 0.004 [△]
One month (II)	3.85 ± 0.5	7.30 ± 0.4	< 0.001 [△]
Three months (IV)	2.80 ± 0.5	7.15 ± 0.4	< 0.001 [△]
p-value ^{**}	<0.001	=0.012	

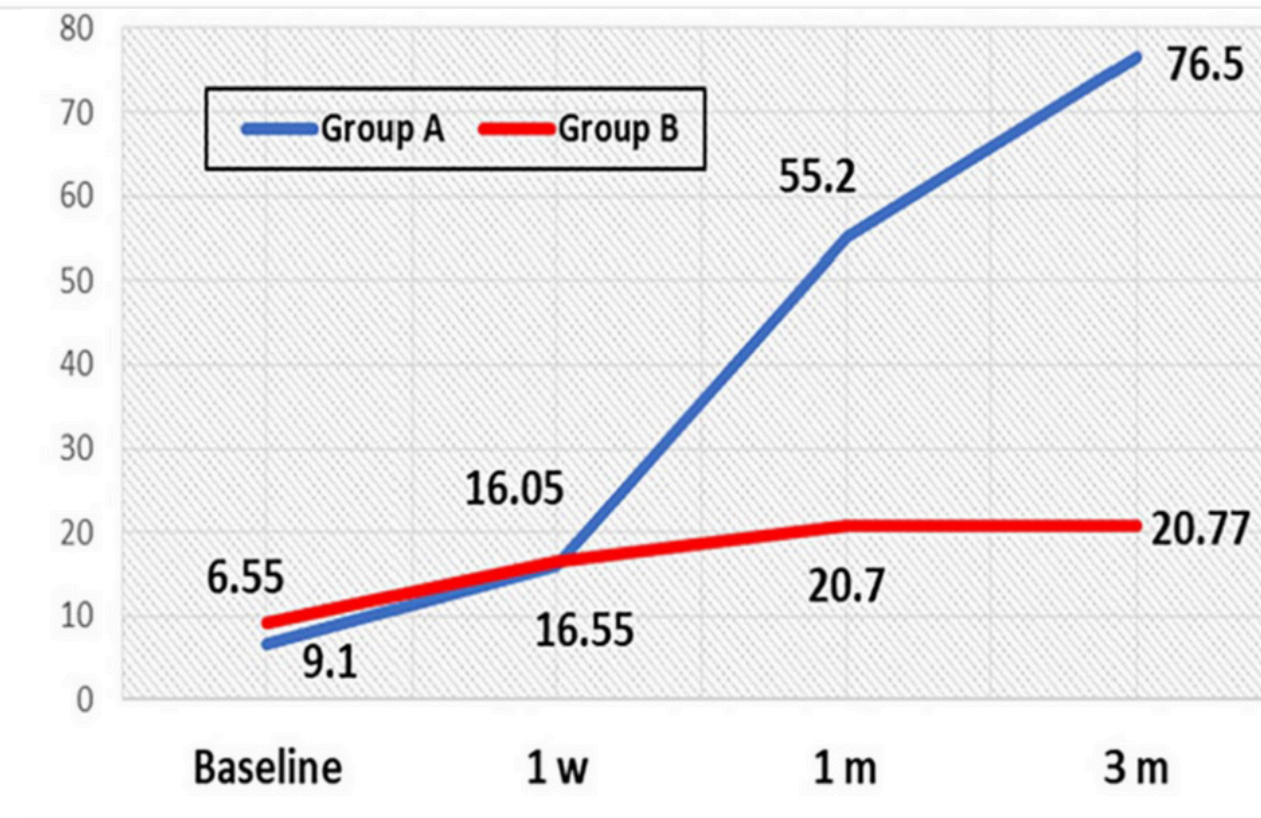
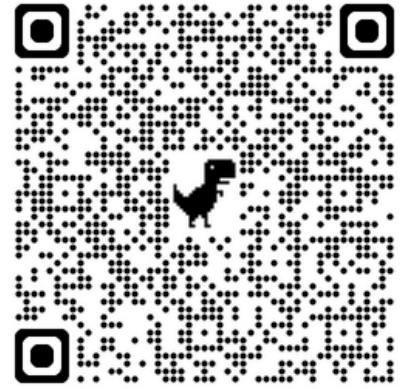


Figure 2 Simple shoulder test (SST) comparison between groups

Les preuves



Capsulite



**Omarthrose
Périopératoire**



Le parcours



Bloc test

Rééducation

Suivi



Consultation
Évaluation lignes TTT
Information

Radiofréquence

SFRIM

