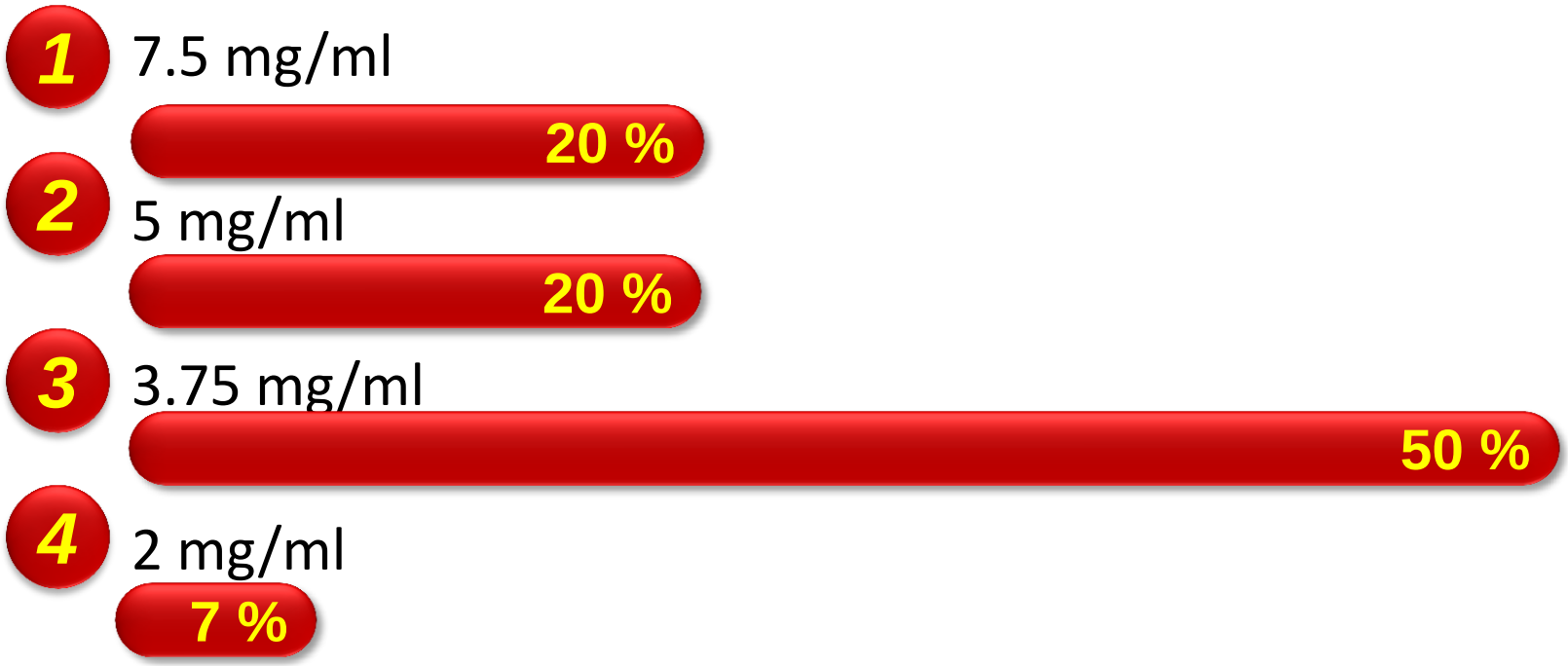
Gestion des neuropathies post-opératoires

Dr Olivier RONTES
Médipôle Garonne - Toulouse

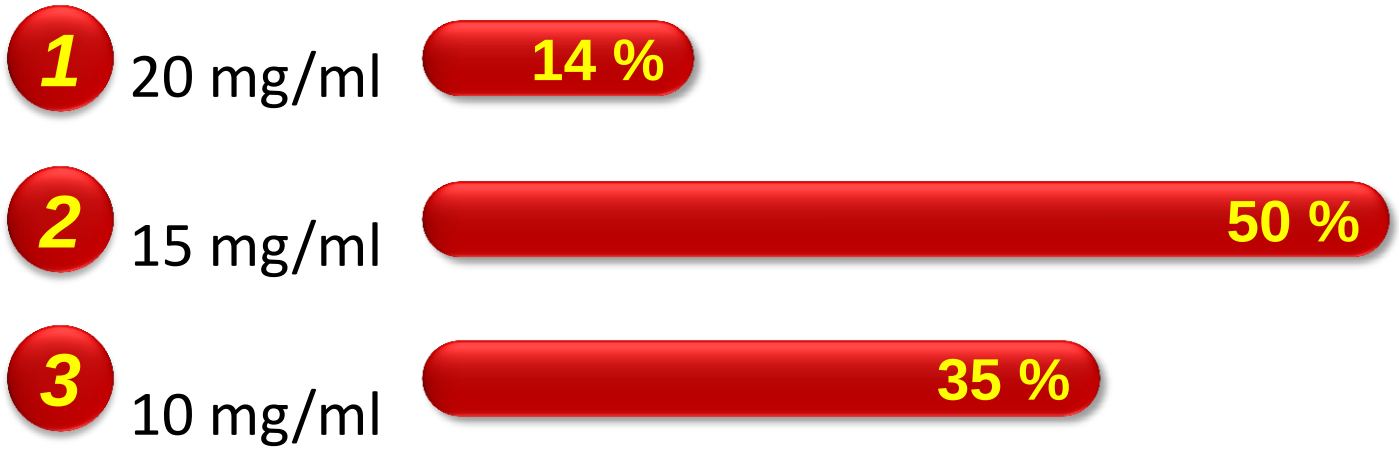
Vous réalisez un bloc sciatique au creux poplité pour une chirurgie du pied.

Quelle concentration de ropivacaine utilisez-vous?



Vous réalisez un bloc sciatique au creux poplité pour une chirurgie du pied.

Quelle concentration de lidocaine utilisez-vous?



Devant un patient présentant une lésion nerveuse post-opératoire, vous réalisez systématiquement:

1. Une EMG seulement

33 %

2. Une IRM et/ou une échographie nerveuse seulement

0 %

3. Une EMG et une IRM (+/- échographie) systématiquement

66 %

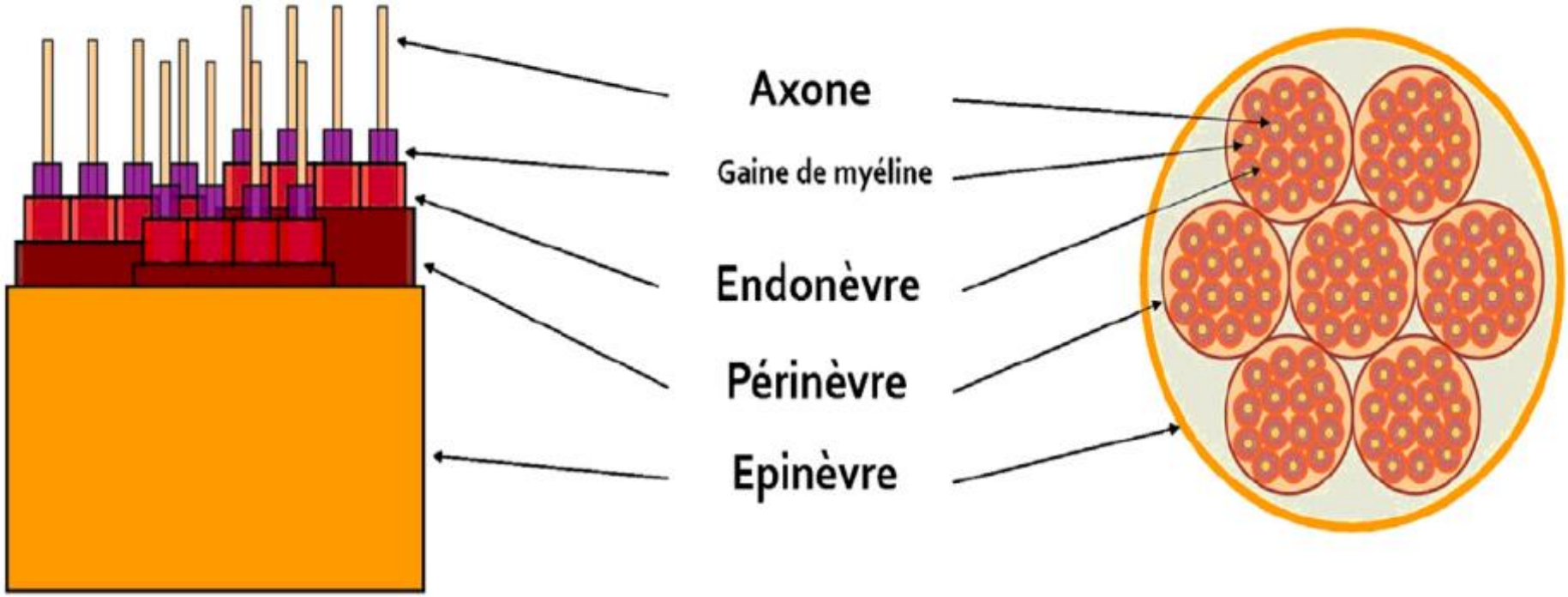
Avez-vous organisé un réseau de correspondant (électromyographiste/radiologue) pour la prise en charge de vos patients?

GESTION DES NEUROPATHIES POST-OPÉRATOIRES

Réunion ARRES
04/03/2017
Toulouse

Dr Olivier RONTES
Médipôle Garonne - Toulouse

HISTOLOGIE DU NERF



Current and future imaging of the peripheral nervous system
Ohana & al Diagnostic & Interventional Imaging (2014) 95, 17-26

CLASSIFICATION DE SUNDERLAND

SUNDERLAND	ANCIENNE NOMENCLATURE	PRONOSTIC RÉCUPÉRATION	DÉLAI DE RÉCUPÉRATION
I	Neuropraxie	Complète	< 12 sem
II	Axonotmnesis	Complète	lent 1 mm/j
III	Axonotmnesis	Variable	lent
IV	Axonotmnesis	Négative	Négative
V	Neuronotmnesis	Négative	Négative

- Auroy 2002: 2,7/10 000 BNP
- Moen 2004: 0,4/10 000 BNP

- PTH: 0,09 à 7,6%
- Arthroscopie de hanche: 1,7%
- PTG: 0 à 9,5%
- Fracture humérus: 9,3%
- Chirurgie de l’épaule: 1 à 8%

Perioperative Peripheral Nerve Injuries

A Retrospective Study of 380,680 Cases during a 10-year Period at a Single Institution

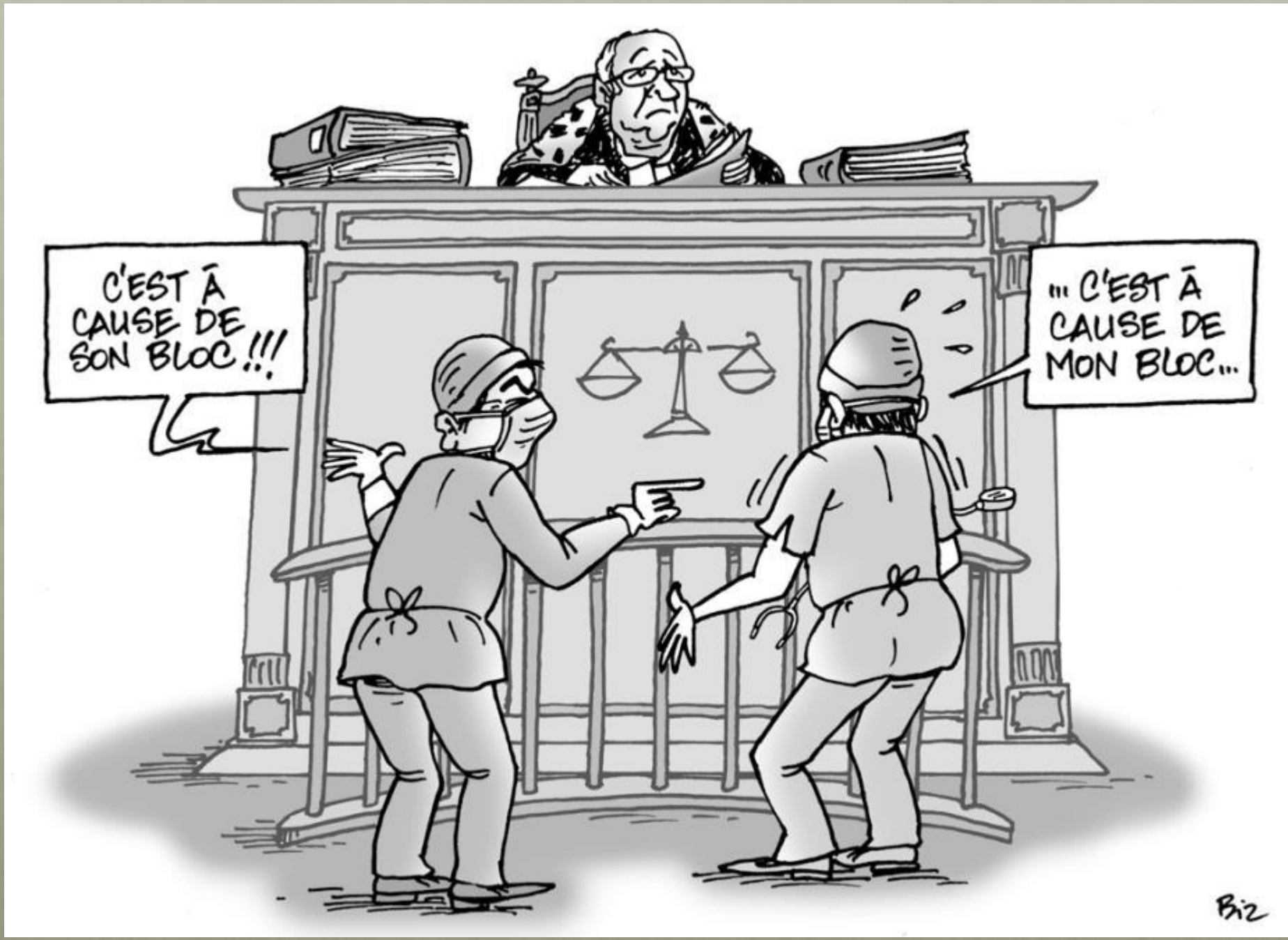
Marnie B. Welch, M.D., Chad M. Brummett, M.D.,† Terrence D. Welch, M.D.,‡ Kevin K. Tremper, Ph.D., M.D.,§ Amy M. Shanks, M.S.,‖ Pankaj Guglani, M.D.,† George A. Mashour, M.D., Ph.D.#*

Anesthesiology, V 111, No 3, Sep 2009

Table 3. Associations between Surgical Service Peripheral Nerve Injury

Surgical Service	No Neuropathy (n = 380,568)	Neuropathy (n = 112)	HR (95% CIs)
Neurosurgery (n = 13,446)	**13,436 (3.5%)**	**10 (8.9%)**	**2.7 (1.4–5.1)**
Cardiac (n = 10,353)	**10,345 (2.7%)**	**8 (7.1%)**	**2.8 (1.3–5.7)**
General (n = 36,762)	**36,740 (9.7%)**	**20 (18%)**	**2.0 (1.3–3.3)**
Orthopedics (n = 43,699)	**43,676 (12%)**	**23 (21%)**	**2.0 (1.3–3.2)**
Transplant (n = 6,850)	6,846 (1.8%)	4 (2.7%)	1.5 (0.5–4.7)
Vascular (n = 7,260)	7,256 (1.9%)	4 (3.6%)	1.9 (0.7–5.2)
Thoracic (n = 6,897)	6,894 (1.8%)	3 (2.7%)	1.5 (0.5–4.7)
Cardiology (n = 5,147)	5145 (1.4%)	2 (1.8%)	1.3 (0.3–5.4)
GYN (n = 17,189)	17,183 (4.5%)	6 (5.4%)	1.2 (0.5–2.8)
OB (n = 28,572)	28,563 (7.5%)	9 (8.0%)	1.1 (0.5–2.1)
Burn (n = 1,696)	1696 (0.4%)	0 (0%)	1.0 (1.0–1.0)
Psychiatry (n = 7,311)	7,311 (1.9%)	0 (0%)	1.0 (1.0–1.0)
Radiology (n = 3,048)	3,048 (0.8%)	0 (0%)	1.0 (1.0–1.0)
Trauma (n = 5,313)	5,313 (1.4%)	0 (0%)	1.0 (1.0–1.0)
Pulmonary (n = 513)	513 (0.1%)	0 (0%)	1.0 (1.0–1.0)
Oncology (n = 10,866)	10,863 (2.9%)	3 (2.7%)	0.9 (0.3–3.0)
Ophthy (n = 30,417)	30,417 (8.0%)	0 (0%)	0.9 (0.9–0.9)
Urology (n = 58,342)	58,326 (15%)	14 (13%)	0.9 (0.5–1.4)
OMFS (n = 4,127)	4,126 (1.1%)	1 (0.9%)	0.8 (0.1–5.9)
Plastic (n = 17,520)	17,518 (4.6%)	2 (1.8%)	0.4 (0.1–1.5)
ENT (n = 38,290)	38,287 (10%)	3 (2.7%)	0.2 (0.1–0.8)

All surgical services were searched for associations with perioperative peripheral nerve injuries. Neurosurgery, cardiac surgery, general surgery, and orthopedic surgery were associated with perioperative peripheral nerve injury. Bold indicates significant values. ENT = otolaryngology; GYN = gynecology; HR = hazard ratio; OB = obstetrics; OMFS = oral maxillofacial surgery; Ophthy = ophthalmology; n = number of cases.


C'EST À CAUSE DE SON BLOC !!!
... C'EST À CAUSE DE MON BLOC...
Biz

Preliminary Results of the Australasian Regional Anaesthesia Collaboration

A Prospective Audit of More Than 7000 Peripheral Nerve and Plexus Blocks for Neurologic and Other Complications

Michael J. Barrington, MB, BS, FANZCA, Steve A. Watts, MB, ChB, FANZCA,† Samuel R. Gledhill, MMedStat,* Rowan D. Thomas, MB, BS, FANZCA, MPH,* Simone A. Said, PGDipEpi,* Gabriel L. Snyder, MB, BS,* Valerie S. Tay, MB, BS, FRACP,‡ and Konrad Jamrozik, DPhil, FAFPHM§*

TABLE 3. Patients Referred to Neurologists and Results of Investigations

Patient	Hospital	Surgery	PNB	Presentation	NCS	MRI	Results of Investigations	Comments
1	H	Biopsy humerus	ISB	Motor deficit, wrist drop	√	×	NCS/EMG abnormal humeral injury	Surgical cause
2	H	Rotator cuff repair	ISB	Pain	√	√	NCS/EMG normal	CSD, full recovery
3	H	Acromioplasty	ISB	Paresthesia	√	√	NCS/EMG/MRI normal	Unrelated to PNB
4	H	Shoulder arthroplasty	ISB	Paresthesia	√	×	NCS normal	Unrelated to PNB
5	G	Acromioplasty	ISB	Paresthesia	√	×	NCS normal	Unrelated to PNB
6	G	Rotator cuff	ISB	Paresthesia/ dysesthesia	×	×	Inflammatory plexopathy	Related to PNB
7	G	Subacromial decompression	ISB	Paresthesia/pain	√	×	NCS—distal deficit, neurapraxia	Unrelated to PNB
8	H	AV fistula	PCB	Paresthesia	√	√	NCS normal, MRI normal, MRI—CSD	Unrelated to PNB
9	H	ORIF humerus	PCB	Paresthesia	√	×	NCS/EMG—ulnar nerve, neuropathy fracture site	Symptoms due to fracture
10	G	Carpal tunnel	PCB	Paresthesia	√	×	Ulnar entrapment	Unrelated to PNB
11	A	AV fistula (3)	PCB	Paresthesia/pain	√	×	Antebrachial neuropathy	Unrelated to PNB
12	H	Wrist fusion	AXB	Pain	√	×	NCS normal	Unrelated to PNB
13	H	Scaphoid excision	AXB	Paresthesia	√	√	NCS, CTS, MRI normal	Unrelated to PNB
14	H	Removal plate	AXB	Paresthesia	√	√	NCS/EMG normal MRI—CSD brachial plexus normal	Unrelated to PNB
15	H	Amputation finger	AXB	Paresthesia	√	√	Ulnar neuritis	Unrelated to PNB
16	H	Hand arthroplasty	AXB	Pain	√	√	CTS, ulnar neuropathy, CSD (MRI)	Unrelated to PNB
17	H	Wrist synovectomy	AXB	Paresthesia	√	×	NCS normal	Unrelated to PNB
18	H	ORIF scaphoid	AXB	Pain	√	×	NCS normal	Unrelated to PNB
19	H	Thumb suspensioplasty	AXB	Paresthesia	√	×	Ulnar neuropathy	Unrelated to PNB
20	G	TKA	LP	Paresthesia	×	×	Refused EMG, CPN injury	Unrelated to PNB
21	G	TKA	LP	Motor	√	×	NCS—CPN injury	Unrelated to PNB
22	H	TKA	FNB	Paresthesia, weakness	√	√	Lumbar canal stenosis, DN	Unrelated to PNB
23	H	TKA	FNB	Paresthesia	√	×	NCS normal	Unrelated to PNB
24	H	TKA	FNB	None	√	√	NCS/EMG mildly abnormal	FNB or tourniquet neurapraxia
25	H	TKA	FNB	Paresthesia/pain	√	×	NCS—DN, radiculopathy	Unrelated to PNB
26	H	AKS (2)	FNB/SCI (2)	Paresthesia	√	×	NCS—bilateral neuropathy normal	Underlying neuropathy
27	G	AKS	FNB/SCI	Paresthesia	×	×	Refused NCS	Related to PNB
28	G	AKS	FNB/SCI	Paresthesia/pain	×	×	—	Unrelated to PNB
29	G	ORIF calcaneus	SCI	Motor (foot drop)	√	√	NCS/EMG—CPN injury	Unrelated to PNB
30	D	Foot surgery	SCI	Paresthesia	√	×	Abnormal NCS	Related to PNB

PNB indicates peripheral nerve or plexus blockade; ORIF, open reduction internal fixation; √, investigation performed; ×, no investigation; ISB, interscalene block; PCB, periclavicular block; AXB, axillary brachial plexus block; FNB, femoral nerve block; AV, arteriovenous; LP, posterior lumbar plexus block; SCI, sciatic nerve block; CTS, carpal tunnel syndrome; CSD, cervical spine degeneration; TKA, total knee arthroplasty; AKS, arthroscopic knee surgery; CPN, common peroneal nerve; DN, diabetic neuropathy.

DONC, IL EXISTE PLUSIEURS CAUSES POSSIBLES

- Origine Anesthésique
- Origine Chirurgicale
- Facteurs de risques individuels