Technique Lumbaroll

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Plan d'intervention

1. Critères d'exclusion
2. Critères d'inclusion
3. Choix de la technique
4. Geste technique
5. Limites, risques et bénéfices de la technique

Technique Lumbaroll

- Une histoire personnelle

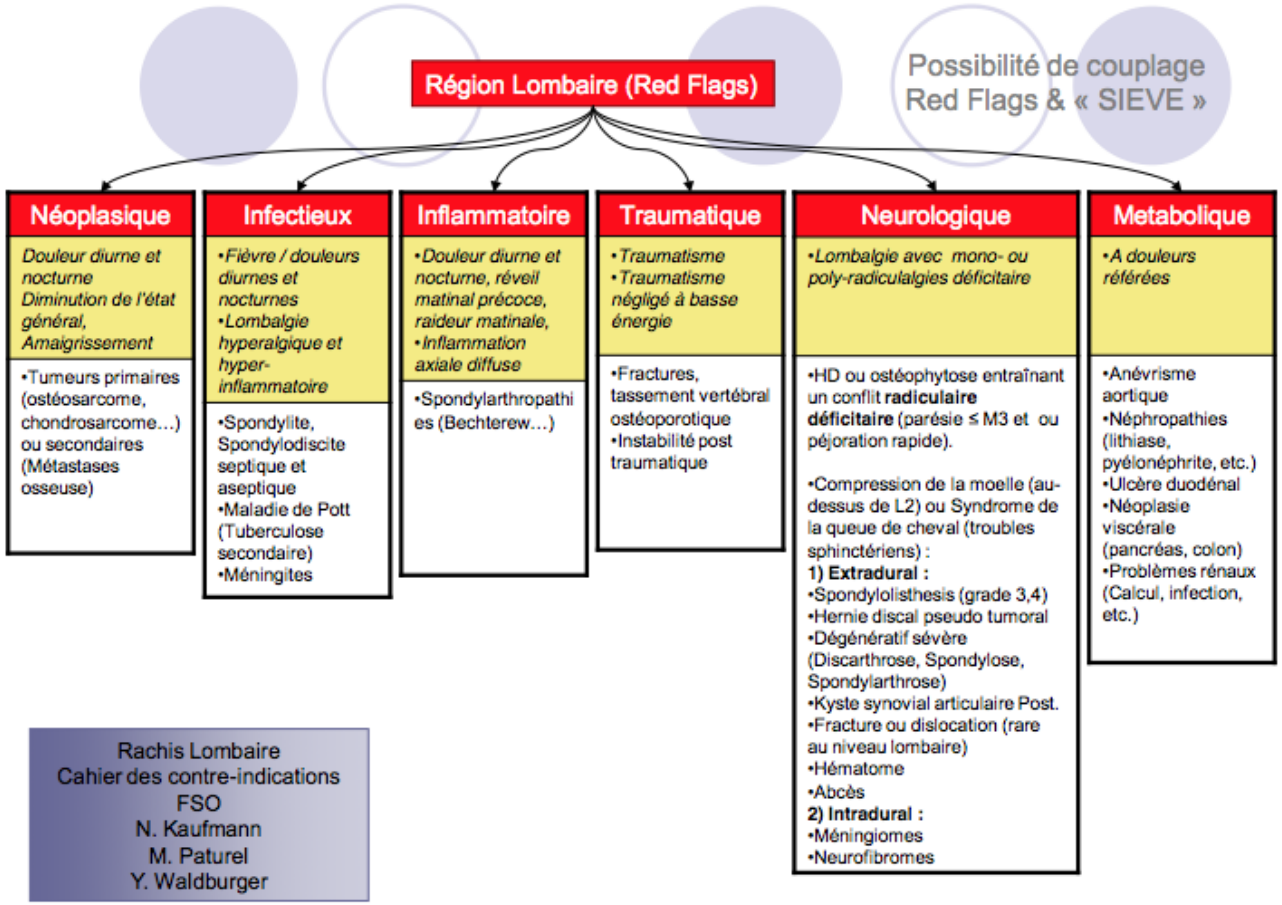
Technique Lumbaroll

1 Critères d'exclusion

1. RED FLAGS

- Fracture
- Tumeur
- Infection
- Inflammation
- Radiculalgie périphérisée avec diminution rapide de force

1 Critères d'exclusion



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1 Critère d'exclusion

2. ORANGE FLAGS

- Instabilité lombaire
- Radiculalgie

2 Critères d'inclusion

- Selon Flyn et al. (2002), confirmé par Childs et al. (2004), les patients ayant le plus de bénéfice à être manipulé présentent :

1. Une douleur durant depuis moins de 16 jours
2. Pas de diffusion de la douleur en dessous du genou
3. Un score au FABQ-W (Fear-Avoidance Beliefs Questionnaire) de moins de 19
4. Une hypomobilité du rachis lombaire
5. Au moins une hanche ayant plus de 35°de rotation interne.

2 Critères d'inclusion

Table 1. **Five Criteria in the Spinal Manipulation Clinical Prediction Rule***

Criterion	Definition of Positive
Duration of current episode of low back pain	<16 d
Extent of distal symptoms	Not having symptoms distal to the knee
FABQ work subscale score	<19 points
Segmental mobility testing	≥1 hypomobile segment in the lumbar spine
Hip internal rotation range of motion	≥1 hip with >35 degrees of internal rotation range of motion

* See Appendix 1 and Appendix 3 video, available at www.annals.org, for details (17). FABQ = Fear-Avoidance Beliefs Questionnaire.

2 Critères d'inclusion

- Présence de:
  - 3 critères 45% de chance de succès pour la manipulation
  - 4 critères 95% de chance de succès pour la manipulation

  Flynn et al.

3 Choix de la technique

- Intérêt manipulation vs mobilisation :
  Cleland et al. 2009, étude randomisée, gain plus rapide que les exercices sur la douleur et le fonctionnel (Oswestry)
- Lumbaroll, technique manipulative

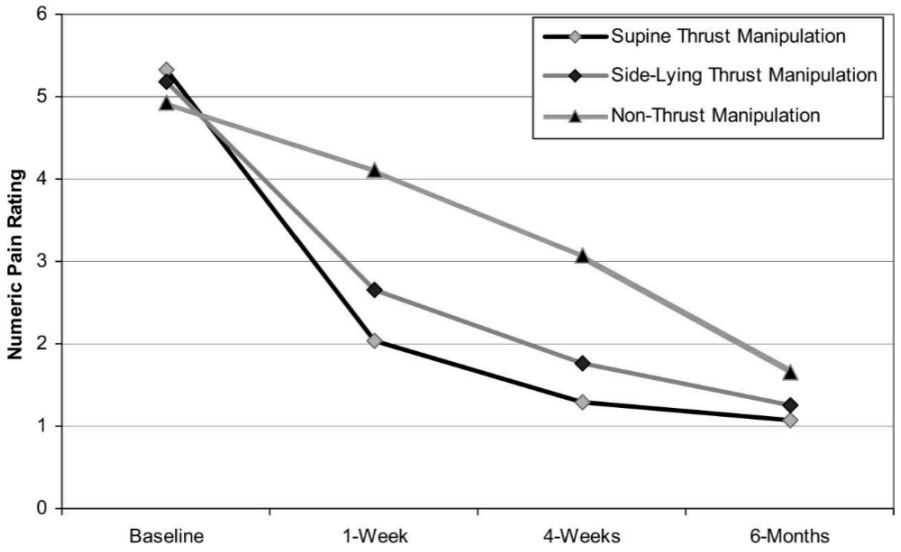

Figure 6. Estimated marginal means for numeric pain scores at each data collection period.

3 Choix de la technique

- But :
  - Réduction de la douleur
  - Amélioration de la fonction

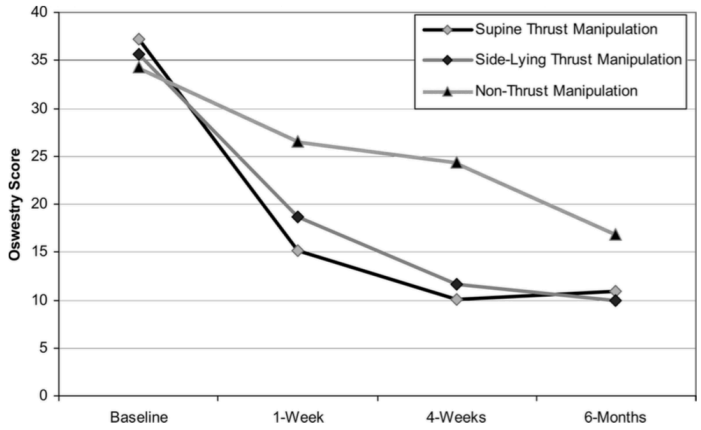

Figure 5. Estimated marginal means for the Oswestry Disability Scores at each data collection period.

Cleland et al 2009

4 Geste technique

1. *Position du sujet :*

- Décubitus latéral, articulaire douloureuse vers le plafond. Proche du bord de la table.

2. *Position du praticien :*

- Face au sujet. Au niveau de l'étage vertébral douloureux.

3. *Mise en place des paramètres :*

  - Mise en place du levier supérieur.
    - Tracter le bras droit vers le plafond jusqu'à sentir l'engagement de la vertèbre sus jacente
    - Repousser, toujours à l'aide du bras, le tronc en légère extension

4 Geste technique

- Mise en place du levier inferieur.
  - Ramener la hanche gauche en flexion

4. *Manipulation :*

impulsion en phase expiratoire en majorant les paramètres de rotation/inclinaison

Remarque : le bruit de craquement n'est pas recherché (Flynn et al, 2006)

4 Geste technique

Conseils pour la réalisation du geste technique

O'Donnell M, Smith JA, Abzug A, Kulig K, How should we teach lumbar manipulation? A consensus study, *Manual Therapy* (2016), doi: 10.1016/j.math.2016.05.003.

Table 2. Items achieving a consensus of being important to a successful side lying lumbar manipulation. For full text of each item please see Appendix 1.

ITEM	CONSENSUS (%)[1]
Patient position – preparatory phase	
Localization to target segment with rotation/side bend	83.5
Patient comfort	96.2
Table height	92.1
Log rolling patient towards operator	83.5
Patient position – manipulation phase	
Maintain localization achieved during preparatory phase	89.4
Rotation of patient's pelvis and lumbar spine	88.6
Operator position – preparatory phase	
Body up and over patient	93.1
Use of forearms to maintain contact/generate force	83.1
Close contact between operator and patient	98.5
Operator motion – manipulation phase	
Generation of force through body and legs	92.3
Dropping downwards to generate force	82.2
Maintain localization while generating force	89.2
Thrust is high-velocity	96.9
Thrust is low-amplitude	87.2

[1] Percentage of participants identifying the item as Very Important or Extremely Important

5 Limites, risques et bénéfices de la technique

- Find it, Fix it, Leave it alone

5 Limites, risques et bénéfices de la technique

La manipulation n'est qu'un geste technique parmi d'autres

Appendix Table 5. **Level of Evidence and Summary Grades for Noninvasive Interventions in Patients with Acute Low Back Pain***

Intervention	Level of Evidence	Net Benefit	Grade
Acetaminophen	Fair	Moderate	B
Nonsteroidal anti-inflammatory drugs	Good	Moderate	B
Skeletal muscle relaxants	Good	Moderate	B
Superficial heat	Good	Moderate	B
Advice to remain active	Good	Small (no significant harms)	B
Benzodiazepines	Fair	Moderate	B
Opioids and tramadol	Fair	Moderate	B
Self-care education books	Fair	Small (no significant harms)	B
Herbal therapies	Fair (devil's claw and white willow bark) to poor (cayenne)	Moderate (devil's claw and white willow bark), unable to estimate (cayenne)	B (devil's claw and white willow bark)
Spinal manipulation	Fair	Small to moderate	B/C
Advice to rest in bed	Good	No benefit	D
Exercise therapy	Good	No benefit	D
Systemic corticosteroids	Fair	No benefit	D
Aspirin	Poor	Unable to estimate	I
Acupuncture	Poor	Unable to estimate	I
Back schools	Poor	Unable to estimate	I
Interferential therapy	Poor	Unable to estimate	I
Low-level laser	Poor	Unable to estimate	I
Lumbar supports	Poor	Unable to estimate	I
Massage	Poor	Unable to estimate	I
Modified work	Poor	Unable to estimate	I
Shortwave diathermy	Poor	Unable to estimate	I
Transcutaneous electrical nerve stimulation	Poor	Unable to estimate	I
Superficial cold	Poor	Unable to estimate	I

* See Appendix Tables 1, 2, and 3 for explanation of grades. Low back pain is considered acute if its duration is <4 weeks.

Chou et al. 2007

5 Limites, risques et bénéfices de la technique

La manipulation n'est qu'un geste technique parmi d'autres

Appendix Table 6. **Level of Evidence and Summary Grades for Noninvasive Interventions in Patients with Chronic or Subacute Low Back Pain***

Intervention	Level of Evidence	Net Benefit	Grade
Acetaminophen	Fair	Small (no significant harms)	B
Acupuncture	Fair (some inconsistency vs. sham acupuncture)	Moderate	B
Psychological therapy (cognitive-behavioral therapy or progressive relaxation)	Good for cognitive-behavioral, fair for progressive relaxation	Moderate (cognitive-behavioral) to substantial (progressive relaxation)	B
Exercise therapy	Good	Moderate	B
Interdisciplinary rehabilitation	Good	Moderate	B
Nonsteroidal anti-inflammatory drugs	Good	Moderate	B
Spinal manipulation	Good	Moderate	B
Opioids and tramadol	Fair (primarily indirect evidence from trials of patients with other pain conditions)	Moderate	B
Brief individualized educational interventions	Fair	Moderate	B
Benzodiazepines	Fair	Moderate	B
Massage	Fair	Moderate	B
Yoga	Fair (for Viniyoga) to poor (for Hatha yoga)	Moderate (Viniyoga), unable to estimate (Hatha yoga)	B (Viniyoga)
Tricyclic antidepressants	Good	Small to moderate	B/C
Antiepileptic drugs	Fair (for gabapentin) to poor (for topiramate)	Small (gabapentin in patients with radiculopathy), unable to estimate (topiramate)	C (gabapentin), I (topiramate)
Back schools	Fair (some inconsistency)	Small	C
Firm mattresses	Fair	No benefit or harm	D
Traction	Fair	No benefit (continuous or intermittent traction), small to moderate (autotraction for sciatica)	D (continuous or intermittent traction), C (autotraction for sciatica)
Aspirin	Poor	Unable to estimate	I
Biofeedback†	Poor	Unable to estimate	I
Interferential therapy	Poor	Unable to estimate	I
Low-level laser	Poor	Unable to estimate	I
Lumbar supports	Poor	Unable to estimate	I
Shortwave diathermy	Poor	Unable to estimate	I
Skeletal muscle relaxants	Poor	Unable to estimate	I
Transcutaneous electrical nerve stimulation	Poor	Unable to estimate	I
Ultrasonography	Poor	Unable to estimate	I

* See Appendix Tables 1, 2, and 3 for explanation of grades. Low back pain is considered subacute at 1–3 months' duration and chronic at >3 months' duration.
† The use of auditory or visual signals reflecting muscle tension or activity to learn how to inhibit or reduce the muscle activity.

Chou et al 2007

5 Limites, risques et bénéfices de la technique

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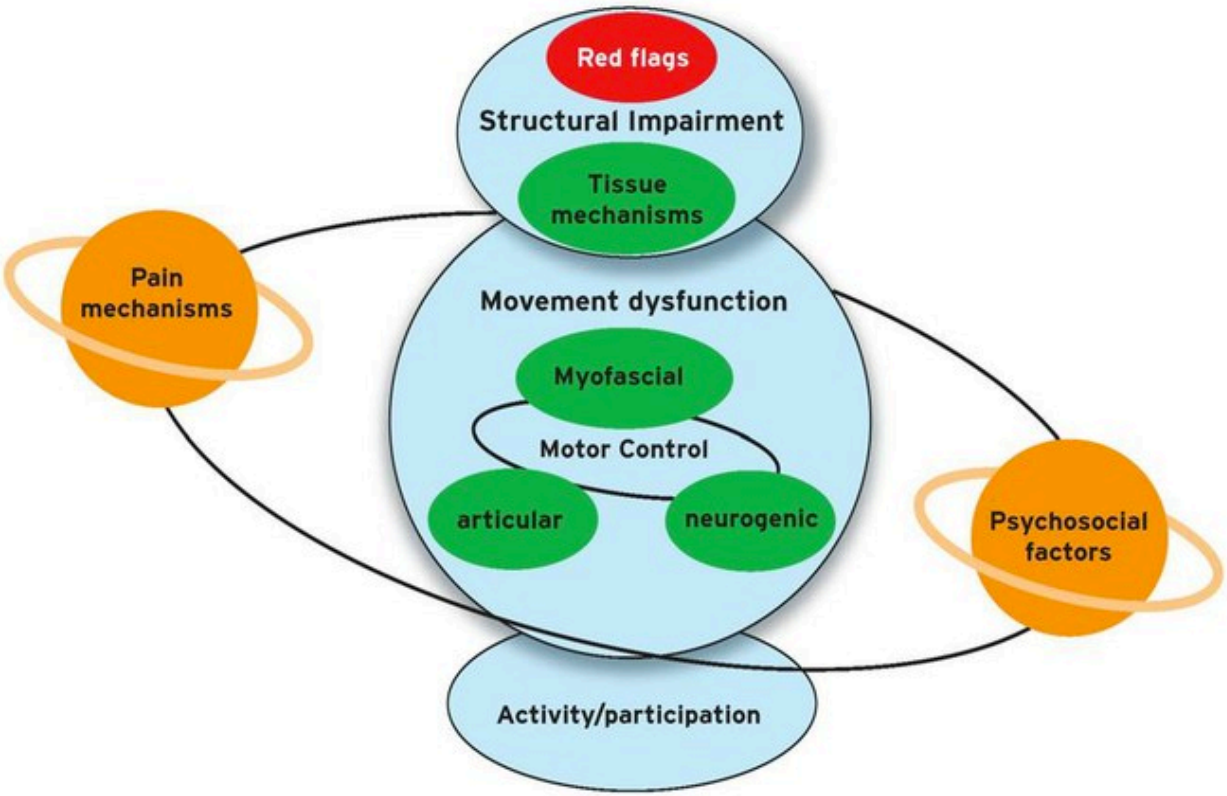
Chou et al 2007

5 Limites, risques et bénéfices de la technique



Daneels et al. 2011

5 Limites, risques et bénéfices de la technique

- Libérer : techniques manipulatives, mobilisation, techniques de relâchement musculaires

- Maintenir : exercices musculaires à visée de renforcement et proprioceptif

- Entretenir : ergonomie, modification du geste sportif

5 Limites, risques et bénéfices de la technique

Remarque:
moins d'effets indésirables dans le groupe manipulation par rapport au groupe sans manipulation

Table 4. Frequency of Side Effects Reported in Each Group

	Supine Thrust Manipulation Group	Side-Lying Thrust Manipulation Group	Nonthrust Manipulation Group
No. subjects reporting side effects (%)	9 (24.3%)	9 (23.7%)	10 (27.0%)
Type of side effect reported			
Aggravation of symptoms	60%	44%	75%
Stiffness	27%	33%	17%
Spasm	13%	33%	0%
Radiating pain	0%	0%	8%

Cleland et al 2009

5 Limites, risques et bénéfices de la technique

- Limites : Cooks et al, 2012 n'a pas retrouvé de différence entre les groupes mobilisation et manipulation.
  - Il est à noté qu'il n'a pas utilisé la CPR
  - La diminution de la douleur entre les groupes importante (60%)
  - Chaque praticien choisi la manipulation qui lui convient

5 Limites, risques et bénéfices de la technique

- Discal: Oliphant et al. 2004 estiment, à l'issue d'une étude prospective à 1 sur 3,7 millions de manipulation le risque
- Fracture: peu de données sur le risque de fracture suite à une manipulation lombaire
- Dépendance du patient à la manipulation, au praticien.

- Merci de votre attention

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