

# Radicular pain and Radiculopathy (painful radiculopathy) are likely associated with the presence of neuropathic pain

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Evaluation of neuropathic pain characteristics in persons with spine-related neck-arm pain

## Background

Spine-related neck-arm pain presentations are heterogenous (nociceptive (NoP)/neuropathic (NeP)<sup>1,2</sup>. A clinical-framework<sup>3</sup> (Fig. 1) differentiates between:

- Somatic referred pain
- Neural mechanosensitivity
- Radicular pain
- Radiculopathy and mixed pain

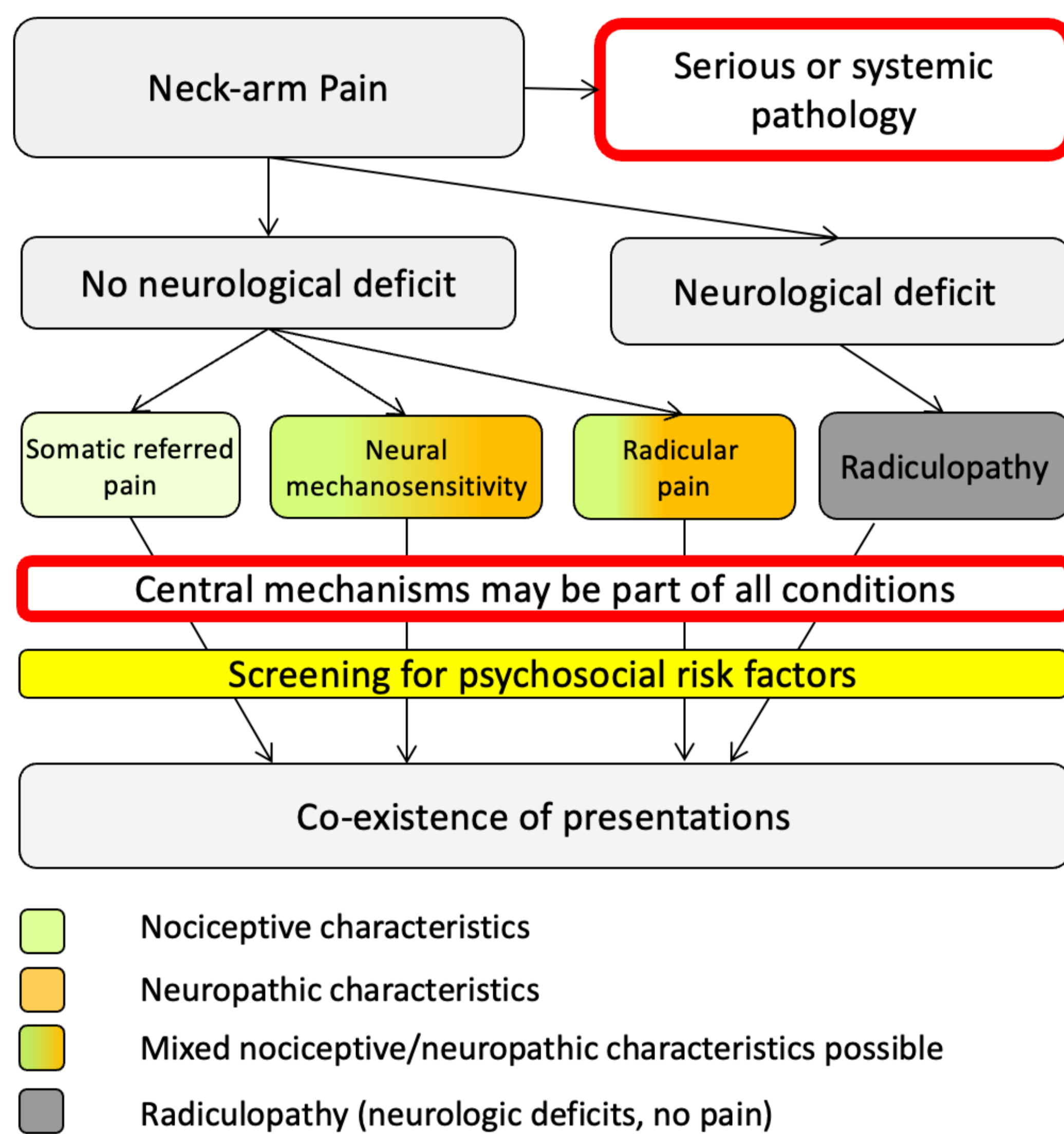


Figure 1: Clinical Framework

## Purpose

To investigate NeP-characteristics between:

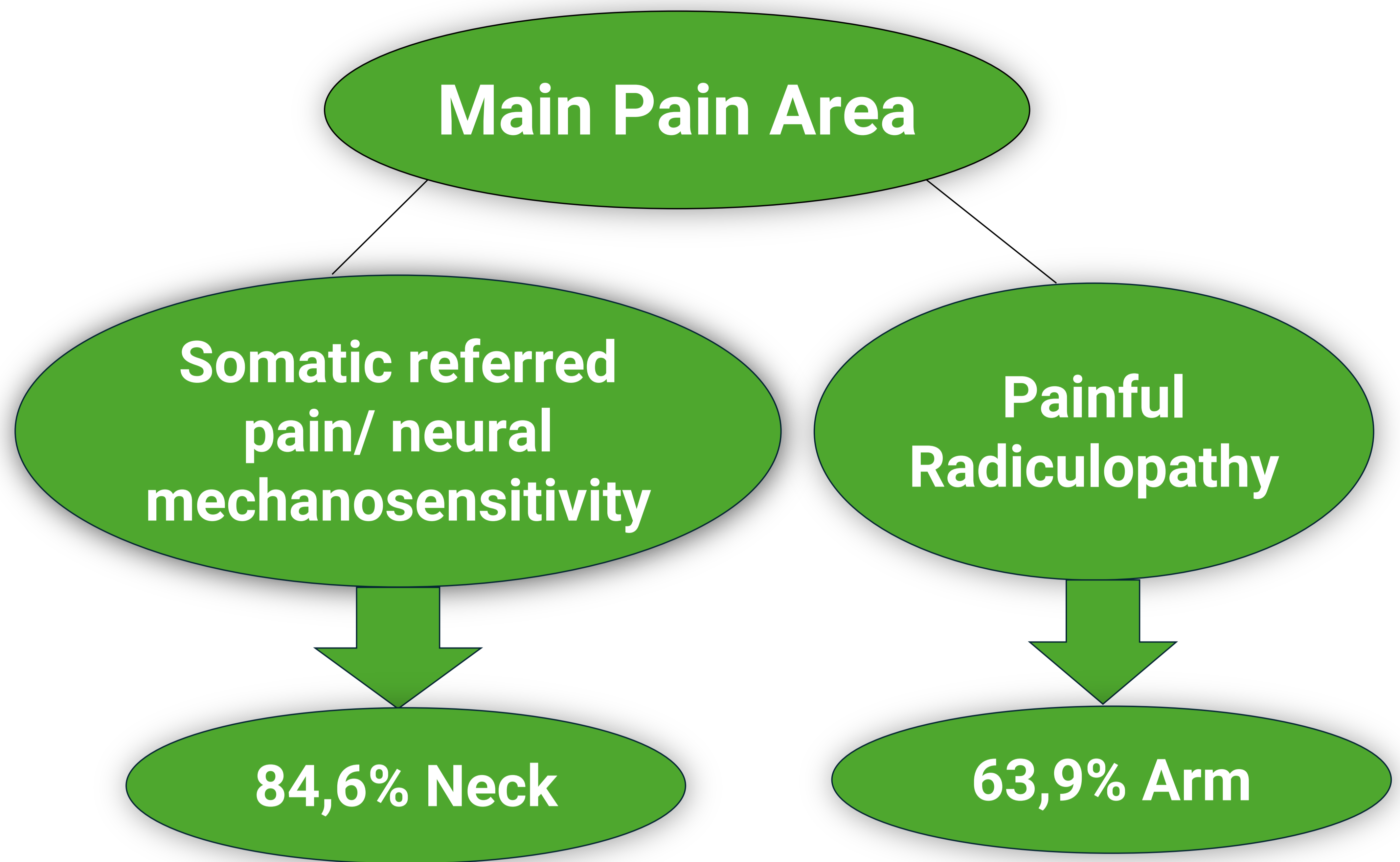
- somatic referred pain and neural mechanosensitivity (group A, defined as having NoP)
- radicular pain and radiculopathy (painful radiculopathy) (group B, defined as having NeP)

→ using the NeP screening tool painDETECT (PD-Q)<sup>4</sup>.

## Methods

113 patients with unilateral spine-related neck-arm pain were assessed:

- Maximal pain area (MPA)
- Pain severity (average last 4 weeks)
- Symptom duration (weeks)
- Neck disability index
- PD-Q with seven weighted sensory descriptors: burning, tingling/pricking, light touch, pain attacks, cold/heat pain, numbness, pressure pain
- PD-Q score: ≤ 18 unlikely NeP  
>19 likely NeP



## Group A:

n = 52 (37 female)

48 (92,3%) unlikely NeP via PD-Q

Pain Intensity: 5,2 (1,7)

Symptom duration 118 (31; 286)\*

Neck Disability Index: 12,4 (5,0)

## Group B:

n = 61 (34 female)

14 (23%) likely NeP.

Pain Intensity: 4,8 (1,7)

Symptom duration 23 (8; 23,5)\*

Neck Disability Index: 12,8 (6,7)

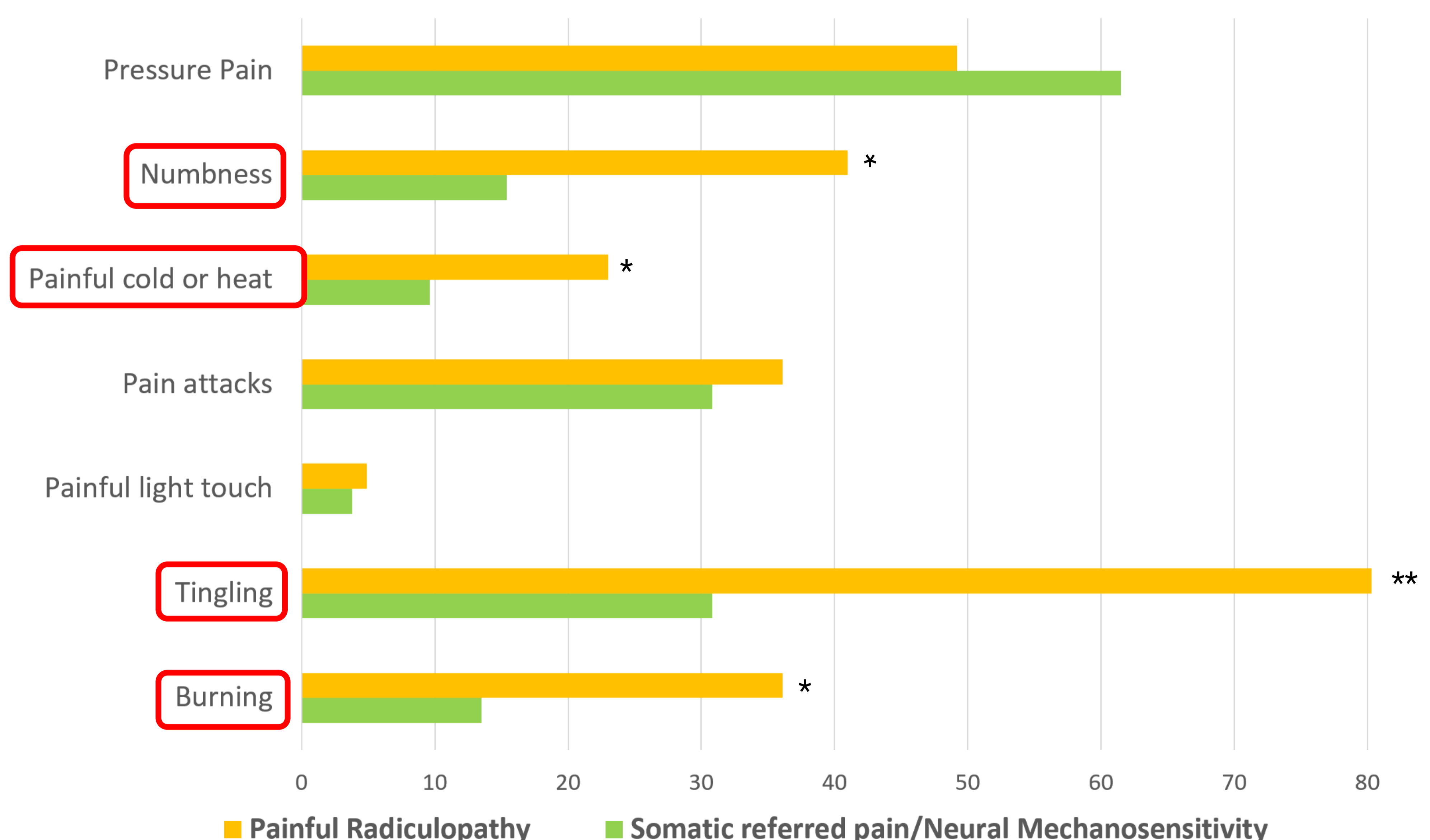


Figure 2: Frequency of PD-Q Descriptors

\* Significant difference < 0,05; \*\* significant difference < 0,001

## Conclusion:

NeP-characteristics differed between the two groups, with the painful radiculopathy group demonstrating significantly more frequent NeP descriptors.

## References:

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