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ORIGINAL ARTICLE

Validity and reliability of the Spanish-language version of the self-administered Leeds Assessment of Neuropathic Symptoms and Signs (S-LANSS) pain scale☆

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KEYWORDS
Chronic pain;
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Abstract
Introduction: The self-administered Leeds Assessment of Neuropathic Symptoms and Signs (S-LANSS) scale is a tool designed to identify patients with pain with neuropathic features.
Objective: To assess the validity and reliability of the Spanish-language version of the S-LANSS scale.
Methods: Our study included a total of 182 patients with chronic pain to assess the convergent and discriminant validity of the S-LANSS; the sample was increased to 321 patients to evaluate construct validity and reliability. The validated Spanish-language version of the ID-Pain questionnaire was used as the variable criterion. All participants completed the ID-Pain, the S-LANSS, and the Numerical Rating Scale for pain. Discriminant validity was evaluated by analysing sensitivity, specificity, and the area under the receiver-operating characteristic curve (AUC). Construct validity was assessed with factor analysis and by comparing the odds ratio of each S-LANSS item to the total score. Convergent validity and reliability were evaluated with Pearson's *r* and Cronbach's alpha, respectively.

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Results: The optimal cut-off point for S-LANSS was ≥12 points (AUC = 0.89; sensitivity = 88.7; specificity = 76.6). Factor analysis yielded one factor; furthermore, all items contributed significantly to the positive total score on the S-LANSS ($P < .05$). The S-LANSS showed a significant correlation with ID-Pain ($r = 0.734$, $\alpha = 0.71$).
Conclusion: The Spanish-language version of the S-LANSS is valid and reliable for identifying patients with chronic pain with neuropathic features.

PALABRAS CLAVE
Dolor crónico;
Dolor neuropático;
Evaluación del dolor;
Validez;
Fiabilidad;
Estudio transcultural

Validación y fiabilidad de la versión española de la escala autoadministrada de Evaluación de Signos y Síntomas Neuropáticos de Leeds (S-LANSS)

Resumen
Introducción: La escala autoadministrada de Evaluación de Signos y Síntomas Neuropáticos de Leeds (S-LANSS) es un instrumento diseñado para identificar a pacientes con dolor de características neuropáticas.
Objetivo: Evaluar la validez y fiabilidad de la versión española del S-LANSS.
Métodos: Se incluyó un total de 182 pacientes con dolor crónico para evaluar la validez discriminante y convergente del S-LANSS, incrementándose la muestra hasta 321 pacientes para valorar la validez de constructo y la fiabilidad de la escala. Se utilizó como variable criterio la versión validada al español del ID-Pain. Todos los participantes cumplimentaron el cuestionario ID-Pain, el S-LANSS, y la Escala Numérica del Dolor. La validez discriminante se evaluó mediante el análisis del área bajo la curva de características operativas para el receptor, y la sensibilidad y especificidad. La validez de constructo se evaluó mediante un análisis factorial y mediante el análisis del odds-ratio de cada ítem del S-LANSS respecto a la puntuación total. La validez convergente y la fiabilidad se valoraron con la R de Pearson y el alfa de Cronbach respectivamente.
Resultados: El punto de corte óptimo del S-LANSS fue ≥12 puntos (área bajo la curva = 0,89; sensibilidad = 88,7; especificidad = 76,6). El S-LANSS presentó un factor y, además, cada ítem contribuyó significativamente a la puntuación total positiva del S-LANSS ($p < 0,05$). El S-LANSS mostró una relación significativa con el ID-Pain ($R = 0,734$) y un alfa de Cronbach de 0,71.
Conclusión: La versión española del S-LANSS es válida y fiable para identificar pacientes con dolor crónico con características neuropáticas.

Introduction

Pain is defined as an unpleasant sensory and emotional experience associated with real or potential tissue damage, or described in relation to that damage.[1] It has a considerable impact on quality of life.[2,3] We can distinguish acute from chronic pain; the latter constitutes a diagnostic challenge in terms of aetiology and pathophysiology.[2] From a pathophysiological perspective, pain can be classified as nociceptive or neuropathic; neuropathic pain is defined as any pain caused by a lesion to or disease of the somatosensory nervous system.[4]

Although the prevalence of neuropathic pain is not known with precision, approximately 2 million people in Spain are thought to be affected.[5] According to several recent studies, neuropathic pain may account for up to 25% of primary care consultations for chronic pain and 51% of consultations at pain units.[6,7]

Several diagnostic questionnaires, validated in different languages, are available for assessing neuropathic pain. Examples include the Douleur Neuropathique 4 (DN4) questionnaire, the PainDETECT scale, the ID-Pain questionnaire, and the Leeds Assessment of Neuropathic Symptoms and Signs (LANSS).[8–14] Bennett created the LANSS pain scale with the aim of identifying patients with pain with neuropathic characteristics; a validated Spanish-language version of the scale is available.[13,15] The scale is not without limitations, as it requires a clinical examination to be performed by a physician, despite the sensory exploration comprising only 2 tests (allodynia, tested by stroking the affected area with cotton wool, and mechanical hyperalgesia, tested with a monofilament); it also increases the duration of patient examinations.[16] Perhaps for this reason, Bennett also created the self-administered LANSS (S-LANSS).[17] This scale addresses the limitations of the original LANSS: being a self-administered instrument, it does not need to be completed