Screening Tools for Neuropathic Pain: Are They Adaptable in Different Languages and Cultures?

Despite being related to a large variety of nerve lesions, neuropathic pain syndromes share common clinical symptoms and signs that are the result of particular mechanisms and necessitate specific management [1]. It therefore makes sense to examine the value of verbal descriptors and pain qualities as a basis for distinguishing neuropathic pain from other types of chronic pain. Pioneering work by Dubuisson and Melzack (1976) and later by Boureau et al. (1990) initially suggested that pain quality descriptors might be discriminatory for neuropathic pain [2,3]. In the last 5 years, extensive research has been undertaken to develop screening tools for this purpose. These tools are all based on verbal pain description with or without limited bedside testing and include: the Leeds Assessment of Neuropathic Symptoms and Signs (LANSS) and its self-administered version called the S-LANSS, the Douleur Neuropathique en 4 questions (DN4) questionnaire, the Neuropathic Pain Questionnaire, the ID-Pain and the PainDetect [4].

Importantly, although screening tools were initially validated in different languages and populations, all five make use of similar language to discriminate patients with neuropathic pain from those with other types of chronic pain with up to 80% sensitivity and specificity. This confirms the reliability and validity of this approach and shows that the language of neuropathic pain is indeed universal. However, it is extremely important to ensure that concepts within an instrument are equal between the original and target language. Therefore, before being used in a new culture or linguistic setting, instruments based on quality descriptors should not only be translated appropriately but submitted to a cross-cultural adaptation process [5]. This includes forward and backward translation, review by an expert clinician, assessment of semantic equivalence, cognitive testing and further adaptation of the wording if necessary. Such process has been successfully applied to screening tools for neuropathic pain. Linguistic validations of the DN4 are now available in Dutch, German, Greek, and Hungarian [6]. The DN4 questionnaire was also cross-culturally adapted to the Thai language [7].

A further step forward is revalidation. Only this process ensures the full reliability and validity of an instrument in a new language. Thus, although the McGill Pain Questionnaire has been adapted into a large number of languages, clinimetric testing of the adapted questionnaire was generally poorly performed and most of the adaptations have unknown psychometric properties [8]. In this issue of Pain Medicine, Koc et al. examined the validity and reliability of the Turkish self-administered LANSS questionnaire in patients with neuropathic pain compared with patients with inflammatory or visceral pain [9]. Results confirm that the Turkish version of the S-LANSS is a reliable and valid measure of neuropathic pain and should be suitable for epidemiological studies. Full revalidation was also performed for the LANSS into Spanish and Turkish, the ID-Pain into Spanish and the DN4 questionnaire into Spanish, Portuguese and Turkish [10–15]. In all these studies, the psychometric properties of the questionnaires were similar in the new language, including their sensitivity and specificity. For example, a total score of 4 out of 10 on the DN4 questionnaire suggests neuropathic pain in French, but also in Spanish, Portuguese and Turkish. Interestingly, new validation studies can also provide with supplemental psychometric validation compared with the original validation (e.g., Perez et al. 2007) [13]. The study by Koc et al. also provides new information about the test-retest reliability of the S-LANSS.

Neuropathic pain screening tools are gaining increasing acceptance in the medical community. Although these tools are based on descriptors, their linguistic adaptation and revalidation into different languages is feasible and ensures their reliability and validity in languages other than those in which they were initially developed. The major strength of these tools is to identify potential patients with neuropathic pain, particularly by nonspecialists. The use of these tools in different languages and cultures should contribute to increase the recognition of neuropathic pain, which is crucial for a better therapeutic management, and facilitate the conduct of badly needed epidemiology studies of neuropathic pain in different countries [16].

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References


