WHICH CLINICAL MODELS ARE THE MOST SUITABLE FOR THERAPEUTIC TRIALS IN LOCALIZED NEUROPATHIC PAIN?

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BACKGROUND

- Localized Neuropathic Pain (LNP) is a widely used term in literature. A first proposal for a definition was recently published: “LNP is a type of neuropathic pain that is characterized by consistent and circumscribed area(s) of maximum pain”.
- Pharmacological management of neuropathic pain can include systemic or topical agents or their combination, and often differs from that of LNP.
- Several guidelines recommend targeted topical treatments as the most rational approach in the management of LNP. First approvals for the indication LNP were granted in South American countries in 2013 (Versatis, 5% lidocaine medicated plaster).
- The question arises about suitable models to investigate LNP in clinical trials.

METHODS

- To estimate prevalence of various LNP syndromes, face-to-face interviews (average duration: 45 minutes) with 585 general practitioners and 284 pain specialists were conducted in several Western European countries from December 2008 to January 2010, asking about a definition of LNP. This survey also documented what kind of neuropathic pain their patients presented with, and how many of these patients suffered from LNP.
- The consensus debate between experts proposing the definition continued throughout the year to answer the following question: “Which clinical models are the most suitable for therapeutic trials in LNP?”

RESULTS

- Averaging across all neuropathic pain conditions, physicians reported that approximately 60% of patients had LNP. Figure 1 shows LNP syndromes per indication.
- The likelihood of LNP was highest in postherpetic neuralgia (PHN 83%), trigeminal neuralgia (TGN 85%), and postsurgical neuropathic pain (PSNP 71%).
- In PHN, PSNP and TGN generally one nerve trunk is affected (Figure 2). A clear localization of the resulting pain signs and symptoms is thus plausible in these indications.
- From a clinical point of view, the typical picture of NP is present in PHN and PSNP, but not in TGN.

CONCLUSION

- The majority of patients with NP suffer from localized neuropathic pain.

In PHN, PSNP and TGN, generally one nerve trunk is affected, leading to localized positive and negative sensory disturbances. However, the typical picture of NP is present in PHN and PSNP, but not in TGN.

PHN is recommended in European Medicines Agency (EMA) guidelines as a valid NP model and could thus be considered as a classical model of LNP for clinical trials.

However, knowledge of individual and surgical contexts in which PSNP occurs, and detection of sensory symptoms in given nerve trunks, offers potentially a suitable model of LNP for future therapeutic trials and prospective studies.

Clinical situations such as PHN and PSNP are suggested to be most suitable for therapeutic trials in LNP and could be considered when studies are designed to demonstrate a favorable risk/benefit ratio of systemic treatments for the management of LNP.

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