By Charles Argoff, MD

Highlights from the World Pain Congress...and Their Implications

Recently-presented data offer insight into proper management of patients with various pain presentations.

New directions in pain management were presented last month (the week of August 18) at the World Pain Congress, organized by the International Association of the Study of Pain (IASP) and held in Glasgow, Scotland. Some highlights of the posters presented are summarized below.

• The recently completed AAN/EFNS Trigeminal Neuralgia Diagnostic and Treatment Guidelines were presented by Turo Nurmikko, MD on August 22. These have also been recently published in *Neurology*.

• Brandes et al. presented the results of their study evaluating the efficacy of using scheduled frovatriptan for the short-term prevention of menstrual migraine for those women with this condition who could accurately predict the onset of their menses. The use of frovatriptan in this setting significantly decreased the incidence of menstrual migraine, and the effects were approximately two-fold greater in those women who were able to dose the medication at the correct time. The investigators also concluded that based upon their results, the short term preventative treatment of menstrual migraine could be optimized if the treatment was paired with better tools to help women predict the onset of their menses.

• Murphy et al. examined the relationship between the presence of dynamic (brush) allodynia in patients with post herpetic neuralgia and change in overall pain level in a randomized control study in which the active treatment was pregabalin. Independent of treatment group, a change in allodynia was found to correlate with a change in the overall pain level; There was a tendency for patients to experience less overall pain relief if the pre-treatment allodynia severity was high, confirming perhaps what we see clinically when treating this condition.

• In an electrophysiologic study utilizing a whole-cell patch clamp technique, Sheets et al. found that lacosamide was able to inhibit inactivated Na channel 1.7 and 1.3 currents in the embryonic kidney cells studied. Lacosamide also inhibited activity at the inactivated Na channel 1.8. Taken together, these data may point to a mechanism for lacosamide's observed analgesic activity, the investigators suggested.

• Gan et al reported the results of their comparison of intravenous ketorolac (available in the US), intravenous diclofenac sodium (available in Europe but not the US), and placebo in a study of post-operative pain. Although most of us as neurologists may not treat many patients with post-operative pain, many of us do use intravenous ketorolac to treat patients with acute pain exacerbations—e.g. in acute headache management—thus the study may have relevance. The intravenous preparation of diclofenac sodium confirmed the safety and efficacy of this new formulation compared to both ketorolac and placebo. The intravenous diclofenac preparation in this study was unlikely to increase the incidence of post-operative bleeding events, even when it was given with anticoagulant medications.

• The burden of painful diabetic peripheral neuropathic pain in three large geographical regions other than Europe or North America was reviewed in a poster presentation by Hoffman et al. Data were collected from patients from Asia, Latin America and the Middle East, and the results confirmed that within each region, patients reported a considerable magnitude of pain severity and pain-related activity interference with higher levels of pain resulting in higher levels of pain related interference on activities such as walking, working, sleeping, and general enjoyment of life as well as adversely affecting mood.

Although this study did not specifically report if any particular treatment intervention helped patients to experience less pain and be more active, it would certainly stand to reason that this analysis underscores the need to assertively recognize and treat the full extent of the discomfort and quality of life interference that we may see in our patients with painful diabetic neuropathy as effectively as possible.

• In a separate study, Gore et al. attempted to characterize the prevalence of comorbidities, patterns of pain-related pharmacotherapy, and medication doses among patients with painful diabetic neuropathy who had been prescribed tricyclic antidepressants, controlled release oxycodone, duloxetine, or Pregabalin. They reviewed 2,379 patients with painful diabetic neuropathy who were prescribed one of these medications.

Patients who were prescribed one of these medications for painful diabetic neuropathy often had multiple comorbidities including cardiovascular, musculoskeletal, and neuropsychiatric

disorders concurrently. More than one of the studied medications was often prescribed for an individual patient confirming what many of us may note clinically—e.g. multidrug therapy is often prescribed for various chronic painful conditions. This study focused on the possibility that the presence of a comorbid condition could contribute to the likelihood of more than one medication being prescribed.

• Toelle et al. reviewed the potential impact on central sensitization following the treatment of various chronic pain syndromes with Pregabalin. Studies reviewed included 11 trials of patients with either post herpetic neuralgia or painful diabetic neuropathy, four fibromyalgia trials, and one trial of patients with central neuropathic pain following spinal cord injury. The authors pointed out that prior animal and human experimental studies with intradermal or topically applied capsaicin had demonstrated long lasting secondary allodynia following the injection or application. The authors pointed out that this form of central sensitization has been hypothesized to result from persistent activation of unmyelinated C-fibers in the dorsal horn of the spinal cord and the release of glutamate and substance P.

Central sensitization produced in this experimental manner has been responsive to gabapentin or pregabalin in prior studies. The authors reported that when reviewing the effect of pregabalin on the various pain syndromes noted above, there was robust evidence for their ability to reduce the effects of central sensitzation. The authors concluded that there may be shared processes of central sensitzation across multiple chronic pain states and that a treatment that may be helpful to reduce the effects of central sensitization in one chronic pain syndrome where this is present may be helpful in others where central sensitization is likely to be involved.

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• In yet another attempt to provide us with a better pain assessment tool, a validation study for the "DoloTest" was presented. With this tool, VAS values are read in millimeters for pain, problems with moderate activities, problems with vigorous activities, problems doing one's job, reduced energy and strength, mood (low spirits), reduced social activity, and sleep disturbance. On average it took subjects one minute and 49 seconds to fill out this tool. Initial results suggest that patients were able to use this tool easily and found that it allowed them to give a meaningful description of the impact of their pain on their lives to their physician.

In a climate where many clinicians are able to spend less and less time directly with a patient, such a tool may prove to be helpful to use when managing patients with various chronic pain states as a means of helping to monitor the full effects of the prescribed treatment.

• Finally, several sponsored symposia deserve mention, including one describing the potential role of pharmacogenomics to enhance the benefits of analgesic treatment, one highlighting the importance of risk assessment and monitoring when prescribing opioid analgesics, and one describing how a greater understanding of the mechanisms of neuropathic pain may lead to improved treatment outcomes.

The next World Pain Congress will be held in Montreal, Canada in 2010. The next meeting of the American Pain Society, the national chapter of the IASP, will be held in May 2009 in San Diego, CA, and the next meeting of the American Academy of Pain Medicine will be held in Honolulu, HI in January 2009. We as neurologists see pain of all types in our daily practice, and I urge each of you to attend these meetings and become members of these societies. **PN**

For more information about the World Pain Congress, visit iasp-pain.org.

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