The Global Year Against Pain in Women

The International Association for the Study of Pain (IASP) has declared 2007-2008 to be "The Global Year against Pain in Women," and has launched a campaign called "Real Women, Real Pain." The purpose of this IASP initiative is to call attention to the fact that chronic pain affects a higher proportion of women than men around the world but that women are less likely than men to receive adequate treatment for pain. Given that many orofacial pain problems are among those chronic pain conditions that differentially affect women, some of the information prepared by IASP in support of the initiative may be of great interest to orofacial pain clinicians and their patients as well as to pain researchers.

To inform practitioners, the press, governments, and the public about pain problems in women, IASP members have developed a series of fact sheets on gender differences in the prevalence and presentation of specific pain conditions, as well as sex differences in the basic biology of pain. These fact sheets are available in English, Spanish, French, Russian, Arabic, Chinese (simplified and traditional), Hindi, and Gujarati (another Indian language) and can be downloaded from the IASP website (www.iasp-pain.org). In addition to the fact sheet "Sex and Gender Differences in Orofacial Pain," several others, including "Sex Differences in Pain—Basic Science Findings," "Sex Hormones in Pain," "Gender and the Brain in Pain," "Pain During Pregnancy," "Epidemiology of Pain in Women," and "Fibromyalgia Syndrome (FMS)" are likely to be of interest to clinicians whose practices include large numbers of women.

The fact sheets point out both how far we have come in developing an understanding of the bases for sex differences in pain and analgesia and how far we need to go. For example, rodent studies have fairly consistently found that males are more sensitive to opioid-mediated analgesia than females are, whether from peripherally or centrally applied opioid drugs or as a result of endogenous opioid release such as occurs with stress-induced analgesia. However, in humans, it is not clear that opioids are more effective in men than in women. Possible effects of the estrous cycle (the rodent equivalent of the menstrual cycle) and possible sex differences in rodent sensitivity may be complicated by the fact that sex differences in rodents interact with the animals' genetic background as well as with the social context in which pain stimuli are delivered.[1]

Findings from research on sex hormones and pain clearly indicate that estrogens are related to pain in women but in complex and sometimes competing ways. For example, estrogens have effects in the central and/or peripheral nervous system on several substances or receptors influencing nociception, including nerve growth factor, c-Fos, MAP-kinase, glutamate, and kainate. All these changes have the effect of increasing nociception or pain. However, estrogens also play an important role in reducing pain, acting through the endogenous opioid system.[2] To complicate matters further, androgens can affect inflammation and pain, which may be another factor influencing the observed sex differences in pain and analgesia.[2]

Unfortunately, little of this basic information provides guidance for how (or whether) to treat men's and women's pain differently. What is known at a clinical level is that women report experiencing more recurrent pain and that women report their pain as being more severe and longer lasting than that reported by men. Many medications also have different effectiveness and different side effect profiles in women than in men.[3] The basic research suggests that these differences are likely due, at least in part, to basic biological differences between the sexes. In addition, these findings may, to some extent, reflect social and cultural norms that result in women's greater willingness to report symptoms (both pain and drug side effects). Whatever the reasons for these differences, it seems important to begin to assess whether specific treatments are more effective in one sex than in the other, as up to now clinical research—including the drug approval process—has often failed to take this fundamental issue into account.

Another important clinical consideration is that women are more likely than men to experience multiple pain problems simultaneously, and having multiple pain conditions is associated with increased risks of psychologic distress and disability, as well as the onset of new pain conditions.[4] These findings suggest that taking a careful and comprehensive

history of pain outside as well as within the orofacial region is a prudent approach that may help guide treatment and inform prognosis for all orofacial pain patients, but particularly for women.

The IASP is to be commended on its efforts to raise awareness of the magnitude of the problem of pain in women worldwide. Although some of the reasons for the observed gender discrepancies are as yet unclear, readers should take the opportunity to review the information the IASP has assembled for the "Real Women, Real Pain" campaign and consider its implications for teaching, research and clinical practice.

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References

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