

Pain and Arthritis

John B. Winfield, MD

Arthritis is virtually synonymous with pain. Arthritis-associated pain is the number one reason patients visit a doctor. For the past 8 years, I have been practicing rheumatology in western North Carolina. Before that, my entire career had been in academic or medical research institutions, most notably at the University of North Carolina at Chapel Hill. The current foray into the “real world” of medicine has been enlightening, to say the least, and has allowed some insight into how arthritis pain is approached in North Carolina that could come only from being part of a local medical community. In this commentary, I will make some suggestions as to how we could do a better job. In addition to medical practice issues such as diagnosis, classification, and management, I will touch upon several less conventional topics such as physician attitude and behavior in the approach to pain.

Chronic pain is an extremely important aspect of illness, yet it is woefully neglected at all levels of training and practice starting with medical school curricula. The public health burden of chronic pain falls mostly on the primary care physician. It has been my experience in “the real world” that there is enormous variability in the willingness and effectiveness of the primary care physician to manage chronic pain in his or her patients. All too often there is a direct “punt” of the entire problem to the local anesthesia pain clinic where after a series of epidural blocks—which don’t help—the patient is “punted” back to the primary care physician and then to me.

Suggestion 1

Address pain as a disease entity, not as a sensory entity.¹ Not infrequently in office-based practice, treatment of pain is secondary to diagnosis and treatment of the disease state. This is unfortunate because pain, especially chronic pain, is among the most disabling and costly medical problems in Western countries.² Patients suffering with chronic diffuse pain who lack objective clinical and laboratory findings (ie, fibromyalgia) are especially likely to be dismissed as not having “real” pain, which only perpetuates their illness. Presence of pain should be

“Presence of pain should be specifically sought and evaluated in all patients and, if present, relief of pain should be a primary focus of the physician’s efforts.”

specifically sought and evaluated in all patients and, if present, relief of pain should be a primary focus of the physician’s efforts.

Suggestion 2

Classify pain immediately after recognition. Pain classification is not difficult. Nociceptive pain is due to stimulation of peripheral pain receptors on thinly myelinated Ad and/or unmyelinated C afferents during inflammation or injury of tissues. The pain experienced generally matches the noxious stimulus. Both peripheral and central nervous system processes play a role in neuropathic pain, which may occur with direct nerve injury. There are 3 common types: (1) peripheral neuropathic pain (eg, postherpetic neuralgia, painful diabetic neuropathy, radiculopathic pain due to injury to spinal nerve roots); (2) central neuropathic pain (eg, central poststroke pain, spinal cord injury pain); and (3) cancer-associated neuropathic pain. Complex regional pain syndrome (reflex sympathetic dystrophy), while very rare, is another neuropathic pain syndrome. Neuropathic pain may be paroxysmal, with unusual characteristics such as electric shock-like shooting or burning, and may be

John B. Winfield, MD, is the Herman and Louise Smith Distinguished Professor of Medicine in Arthritis Emeritus at the University of North Carolina at Chapel Hill School of Medicine and currently is a practicing rheumatologist with Appalachian Regional Rheumatology. He can be reached at john_winfield@med.unc.edu or 400 Shadowline Drive, Suite 100, Boone, NC 28607.

associated with hyperpathia (persistence after the stimulus has ended, spreading or worsening in crescendo-fashion with repeated touching). Chronic pain of complex etiology occurs in fibromyalgia and a large number of substantially overlapping regional pain syndromes such as migraine headache, temporomandibular disorders, irritable bowel syndrome, and atypical chest pain, to name a few. Previously termed “functional pain syndromes” on the basis of absent structural pathology, these illnesses share very close relationships etiologically and pathophysiologically. Recent advances in the understanding of the psychophysiologic/neurophysiologic dysregulation in such illnesses is impelling a unifying reclassification as central sensitivity syndromes.³ More purely psychogenic pain is seen in somatoform and somatization disorders and hysteria and is quite rare.

Suggestion 3

Invest some time catching up on recent developments in fibromyalgia. Forget the disparaging and dismissive comments of your professors and senior residents. These patients are not crocks or neurotic whiners. Rather, they have a complex neurosensory disorder manifest by multiple abnormalities in how the central nervous system processes and interprets sensory input. At least 5% of adult females have fibromyalgia. Approximately 25% of patients with rheumatoid arthritis and perhaps 50% of patients with lupus also have fibromyalgia, and both illnesses must be treated for optimum therapeutic response. In fibromyalgia, altered central nociceptive processing results in a decrease in the pain perception threshold and in the threshold for pain tolerance. Except for pain with palpation of tender points, the physical examination and all routine laboratory tests are normal yet the pain is very real, as can be demonstrated by sophisticated quantitative sensory testing methods and functional MRI studies. Multiple genes^{4,5} that increase vulnerability to this and related disorders have been identified. These genes encode molecules involved in nociceptive processing, and their identification is proving to be invaluable in new drug discovery. Very effective management strategies have evolved,^{6,7} and for the first time a drug, pregabalin (Lyrica), has been specifically approved by the Food and Drug Administration for treatment of pain in fibromyalgia. Several more (eg, duloxetine/Cymbalta and sodium oxybate/Xyrem) should receive Food and Drug Administration approval shortly.

Suggestion 4

Apply some simple approaches for measuring pain, fatigue, sleep, psychological well-being, and daily functioning in your patients. This sounds complicated and time-consuming, but it is not. Pain intensity can be measured with either a verbal or numerical rating scale or a visual analog scale. Observation of pain behaviors such as guarding, rubbing, grimacing, and sighing provides insight into self-efficacy for control of chronic pain—

more prominent pain behavior equates to low self-efficacy—which in turn greatly compromises a patient’s capacity to cope with chronic pain conditions. A number of measurement tools can be applied in just a few minutes while the patient is in the waiting room through use of a multidimensional health assessment questionnaire. This instrument combines simple self-report forms that incorporate validated scales for physical and psychological health status (modified health assessment questionnaire); visual analog scales for pain, fatigue, and patient global self-assessment; a checklist of current symptoms; and scales for helplessness and cognitive performance.⁸ Easily adaptable to a busy practice, such information is invaluable for the psychosocial assessment of pain both diagnostically and in monitoring response to therapy.

Suggestion 5

Do not be afraid of opioids. It is my experience that certain primary care physicians or even entire practice groups have a policy of not prescribing narcotics, period! This is ridiculous, bad medicine, and perhaps even malpractice. Some chronic noncancer pain can be managed only with opioids including pain in occasional patients with fibromyalgia. Not every patient who requests hydrocodone is a drug-seeker. Low-dose opioids taken concurrently with nonsteroidal anti-inflammatory drugs or Cox-2 inhibitors for patients with osteoarthritis who fail acetaminophen are not only effective when used as part of a multimodal approach to pain control, but may have fewer potentially life-threatening complications.⁹ Reasonable guidelines for use of opioids in more severe musculoskeletal pain include exclusion of substance abusers, concomitant attention to psychological and social perpetrators of pain, use of an opioid treatment contract, a one physician-one dispensing pharmacy policy, and close monitoring. It should be remembered that drug-seeking behavior (pseudoaddiction) may indicate that pain is not being controlled adequately.

Summary

Address arthritis-associated pain as a disease entity, not as a sensory entity. Attempt to classify chronic pain as nociceptive pain, neuropathic pain, fibromyalgia-type pain, or psychogenic pain (very uncommon); specific treatment approaches are required for these different types of pain. Overcome your negative bias against fibromyalgia and review recent discoveries that have led to classification of fibromyalgia as a biologically-based neurosensory disorder. Use the simple and convenient ways that are available to measure pain and its concomitants (fatigue, poor sleep, depression, anxiety, and impaired physical functioning) both at initial evaluation and in follow-up visits as a guide to therapy. Do not fear use of opioids; just be careful with this class of drug. **NCMJ**

REFERENCES

- 1 Siddall PJ, Cousins MJ. Persistent pain as a disease entity: implications for clinical management. *Anesth Analg*. 2004;99(2):510-520.
- 2 Koleva D, Krulichova I, Bertolini G, Caimi V, Garattini L. Pain in primary care: an Italian survey. *Eur J Public Health*. 2005;15(5):475-479.
- 3 Yunus MB. Fibromyalgia and overlapping disorders: the unifying concept of central sensitivity syndromes. *Semin Arthritis Rheum*. 2006;36(6):339-356.
- 4 Diatchenko L, Slade GD, Nackley AG, et al. Genetic basis for individual variations in pain perception and the development of a chronic pain condition. *Hum Mol Genet*. 2005;14(1):135-143.
- 5 Diatchenko L, Nackley AG, Slade GD, Fillingim RB, Maixner W. Idiopathic pain disorders – pathways of vulnerability. *Pain*. 2006;123(3):226-230.
- 6 Burckhardt C, Goldenberg D, Crofford LJ, et al. Guideline for the Management of Fibromyalgia Syndrome Pain in Adults and Children. Glenview, IL: American Pain Society; 2005:1-109. (APS Clinical Practice Guidelines Series, No. 4)
- 7 Winfield JB. Fibromyalgia. In: Dale DC, ed. *ACP Medicine*. New York: WebMD Professional Publishing; 2006: 1412-1418.
- 8 Pincus T, Swearingen C, Wolfe F. Toward a multidimensional Health Assessment Questionnaire (MDHAQ): assessment of advanced activities of daily living and psychological status in the patient-friendly health assessment questionnaire format. *Arthritis Rheum*. 1999;42(10):2220-2230.
- 9 Goodwin JL, Kraemer JJ, Bajwa ZH. The use of opioids in the treatment of osteoarthritis: when, why, and how? *Curr Pain Headache Rep*. 2005;9(6):390-398.