JAOA

Editorial

Individualizing treatment plan and combining approaches key to pain management and holistic care: a student's perspective

Pain can be overwhelming. Acute pain may be excruciating and later resolve with treatment. Chronic pain, with its incessant prodding, can overshadow other symptoms until it becomes the all-encompassing problem. Preoccupation with the pain may occur as it begins to affect a person's work, social life, and self-esteem. Emily Dickinson wrote[1]:

Pain has an element of blank;
It cannot recollect
When it began, or if there were
A day when it was not.

Men and women of all ages, education, and social backgrounds are affected by a variety of painful conditions. In dealing with an acute flare-up of pain or unremitting chronic pain, these patients will turn to a physician for help. It is of utmost importance for the physician to acknowledge the patient's pain, physically examine the patient, and explore the patient's history to discover the etiology of the pain. Through a holistic approach, it may be possible to find areas related to the patient's presenting pain by looking beyond the primary location of symptoms. And, because pain is a symptom, not a diagnosis, this approach will delve into the cause of the patient's complaint and allow the physician to deal with the patient's pain. With this approach, I believe I will succeed in personalizing the care of all patients and become an advocate for their individual needs. Various modalities exist to treat such patients. My personal approach will include using primarily osteopathic manipulative treatment (OMT) with the incorporation of pharmacology, psychology, and social involvement. Additionally, I will incorporate significant patient education and patient involvement to treat my patients and manage their pain.

This idealistic care of the whole person is a concept well known in the osteopathic medical profession. Manipulation plays a direct role in modifying the body's physiologic stresses that create pain. It also affects stress-related pain syndromes and homeostatically balances the effect of primary or referred pain.[2] Because I am dedicating an extra year of medical school to a fellowship in OMT, I believe I will possess the armamentarium to treat a variety of pain presentations. Presently, treating my own patients and seeing improvements in their levels of pain have given me a greater appreciation of the beneficial effects of OMT. Therefore, after graduation, my primary treatment modality in patients with pain will be manipulation.

A true osteopathic history and structural examination takes into account things generally overlooked in a generic allopathic medical history. This approach is important as some pain symptoms may be presented in a manner that could limit the diagnosis. Birth trauma and position, gait, sleeping positions, range of motion, symmetry of all bony structures, posture, and actual palpatory findings are all used as clues to make a diagnosis "osteopathically."

Manipulation affords a physician hundreds of techniques that may be combined to treat a variety of pain presentations according to palpatory findings. Muscle energy, high-velocity/low-amplitude, counterstrain, facilitated positional release, soft tissue, myofascial, and osteopathy in the cranial field are some of them. These techniques are versatile in that they can be used in an acute or chronic situation and they may be taught to patients to do for themselves or to treat their own children. Additionally, manipulation has been used successfully to treat various causes for pain, including somatic dysfunction and disturbances of the neurologic, vascular, and lymphatic systems affecting body homeostasis. Some specific examples include headaches, arthritis, sinusitis, ear infections, carpal tunnel syndrome, temporomandibular joint dysfunctions, postsurgical pain, menstrual cramps, torticollis, and generalized musculoskeletal pain. Osteopathic manipulative treatment has been proven effective for visceral pain as well, including retroperitoneal abscesses, renal lithiasis, perihepatic abscess, and pelvic inflammatory disease.[3]

Osteopathic manipulative treatment not only affords a hands-on approach to patient care that aids the physician through palpatory information, but it benefits the patient as well. It provides a relaxing patient-physician interaction that many people are seeking. Overall, the benefits of OMT include improvement of range of motion, muscle strength, and tissue texture and altered pain pathways.[4] There are instances, however, when OMT alone does not sufficiently alleviate a patient's pain and analgesic medications may be necessary.

Pharmacologic approaches to pain include over-the-counter nonsteroidal anti-inflammatory drugs, prescription analgesics, corticosteroids, muscle relaxants, and narcotics. Also, antiseizure or antidepressant medications may be indicated for certain types of pain. Some new alternatives for analgesics are the cyclooxygenase-2 inhibitors, which provide pain relief without gastrointestinal symptoms such as bleeding and pain. Aspirin is an excellent choice in management of pain because it interferes with pain signals where they originate—at the

nociceptive peripheral nerve endings. Narcotics provide stronger pain relief than aspirin but have the potential for abuse and may have negative side effects such as constipation.[5] One way to prevent these negative side effects is to provide transdermal patches or a surgically implanted infusion system.

Recently, there have been developments to create nonnarcotic painkillers. The motivation for such development is not only to prevent addiction, but also to address the fact that narcotic medications are not always effective in treating chronic pain conditions.[5] Narcotic drugs do not successfully treat neuropathic pain or inflammation.[6]

Certain antidepressant medications have been indicated for the neuropathic pain of shingles because they increase the levels of serotonin, a chemical thought to play a key role in pain control. Antiepileptic drugs have been used to treat adult facial neuralgias like tic douloureux by minimizing the incoming and outgoing nerve signals of the nervous system.[7] Nerve blocks using anesthetic drugs to provide analgesia in certain regions are another option. A local anesthetic may be injected into trigger points to provide relief from their radiating pain. Spray and stretch is another approach for recurring tight regions of muscle.

Any type of pain relief and muscle relaxation will allow for homeostasis of internal bodily fluids, thus minimizing the stress placed on inflamed tissues.[3] With awareness of the foregoing options for treating pain, I can provide a proper medication with minimal side effects. To prevent depression and the suicidal ideation often associated with the negative effects of pain on the quality of life, pain management with medication must be provided in addition to alternative therapeutic options when necessary.

As mentioned, pain may lead to irritability and depression. The terrible triad of sadness, suffering, and sleeplessness may result. This triad can have a lasting effect on the individual as well as the family.[5] Various psychologic methods exist, such as psychotherapy, relaxation and meditation modes of therapy, hypnosis, biofeedback, and behavior modification to decrease pain, anxiety, and depression. Additionally, group therapy allows patients to talk about their pain in a supportive and understanding environment. Encouraging patients to pursue activities that make them happy is a simple way to take the focus off their pain. No matter what psychologic approach is used, these methods all involve patients playing an active role in controlling their own pain by changing attitudes, feelings, or behaviors.

Patient education is also an important component in my treatment of patients with pain. I want my patients to better understand their pain, what they can do to control acute flare-ups, and what to expect of their care in the future. With an empowered outlook, patients will be more responsive to their bodies and to their pain. They will be more empowered to take an active role in managing their pain. Some examples of patient involvement include exercise, stretching, improving nutrition and posture, and weight loss.

Through exercise, the body releases its own pain relievers called endorphins. Exercise decreases pain caused by musculoskeletal dysfunction and keeps joints mobile, thereby diminishing stiffness and range-of-motion difficulties. It may help to repair and change tissues and improve strength as well as endurance. Without exercise, adhesion and fibrosis may occur, and patients must be made aware of this consequence.[4]

Surgery may be a last resort for pain relief after all other options have been explored. The main technique is cutting the nerve endings, which can destroy other sensory pathways and may provide only short-term relief. Electrical stimulating techniques hold another promising alternative for treatment of patients with pain by destroying nerve cells supplying pain sensation.

Overall, the key to my approach for treating patients with pain will be to individualize my treatment plan and use a combination of approaches. The patient-physician relationship is especially important in dealing with chronic pain. By neither dismissing nor indulging these patients, physicians must understand how pain can dominate patients' lives as well as the lives of their families. My personal treatment programs will primarily include OMT, analgesic and anti-inflammatory medication if necessary, psychologic interventions such as breathing and relaxation techniques, and group therapy, exercise, and patient education to encourage patient involvement.

Because osteopathic manipulation epitomizes a holistic outlook of patient history, examination, and structural palpation, it will allow me to tailor my treatment to help my patients' needs. With the additional training I will receive during the next year, I will be more adequately prepared to use manipulation to treat patients with pain. Primarily, I will use OMT because there are many technique options that may be applied to treat different symptoms, taking into account the patient's age, illness, visceral involvement, and arthroidal manifestations. Not only does OMT have minimal side effects, it allows for a patient-physician interaction that promotes relaxation, thus enhancing its effects. Patients respond quickly and feel better. In addition to OMT, medications may be needed for further analgesia and control of inflammation. I will keep in mind that certain medications are better suited for certain types of pain, and I will always stay up-to-date on current recommendations.

Psychologic help is key to a patient's improvement of pain level, especially when depression is involved. Social groups

are an important aspect, and group therapy allows these patients to find support from those who understand what they are dealing with. Additionally, I will educate my patients, encourage weight loss when necessary, and promote exercise to improve their level of pain and encourage the ability of their bodies to provide their own pain relief. Ultimately, they will spend more time doing what they love and less time thinking about their pain.

Tara Heintz Lawlor, MS IV*
Philadelphia College of Osteopathic Medicine (PCOM)
Philadelphia, Pennsylvania

References

1. Dickinson E: *The Complete Poems of Emily Dickinson.* Boston, Mass: Little, Brown & Co; 1924.

2. Kuchera M. Osteopathic principles and practice/osteopathic manipulative treatment. *JAOA* 1998;98(4 Suppl):S14-S19.

3. Buser BR, Paul FA. Osteopathic manipulative treatment applications for the emergency department patient. *JAOA* 1996;96:403-409.

4. Berger J. Exploring every option. *The DO* 1998;39(6):52-58.

5. National Institute of Neurological Disorders. *Chronic pain—Hope Through Research.* Bethesda, Md: NIH Publication No. 90-2406; 1989.

6. Fitzgerald M. Sclerotherapists receive tips on managing addicts' pain. *The DO* 1998;39(2):74-76.

7. Bouley J. Overcoming fear of opioids. *The DO* 1998;39(2):59-65.

Editor's note: This essay (written when Mrs Lawlor was a third-year osteopathic medical student and edited for publication), details an osteopathic medical student's approach to osteopathic medicine and pain management. For it, the author was awarded a Sara and Benjamin Lincow Pain Management Foundation Scholarship. A criterion for the award was submission of a 1000-word essay on the question: "Upon graduation from PCOM, how would you treat pain using OMT alone or incorporating one of more of the following: pharmacology, psychology, sociology?" The scholarship, established with donations to The PCOM Mission by Arnold S. Lincow, DO, and his family in memory of his parents, seeks to provide financial assistance to second- and third-year students exhibiting a professional commitment in the area of pain management. *JAOA* shares the enthusiasm of this young physician-to-be in the hope that it will spark renewed interest in the practice of a truly osteopathic medicine approach to patient care—holistic to its fullest potential.