

Complementary and Alternative Medicine for Arthritis

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Since the mid-1990s, the prevalence and costs associated with the use of complementary and alternative medicine have attracted the interest of health care organizations, policy makers, providers, and consumers. Complementary and alternative medicine is usually defined as medical interventions that are neither taught widely in US medical schools nor generally available in US hospitals¹ and includes modalities such as herbal medicine, spiritual healing, and aromatherapy. It is important to remember, however, that with data from efficacy studies complementary and alternative medicine treatments have the potential to become part of mainstream medicine. For example, digitalis and colchicine were once considered “alternative” but are now prescribed by mainstream practitioners. In this commentary, I will briefly review the epidemiology of complementary and alternative medicine use by patients with rheumatologic conditions and highlight recent data on selected complementary and alternative medicine treatments for arthritis.

Epidemiology

It is well documented that people with chronic conditions use complementary and alternative medicine to treat their symptoms. Depending on the study population and how it is defined, the estimated prevalence of complementary and alternative medicine use by Americans ranges from 33% to 90%.¹⁻⁵ In a landmark study, Eisenberg and colleagues reported that 33% of Americans used an alternative therapy in 1990.¹ By 1997 the percentage of Americans reporting complementary and alternative medicine use increased to 42%, and 46% reported visiting a complementary and alternative medicine practitioner.² While most individuals use complementary and alternative medicine to supplement conventionally-prescribed treatment, many do so without informing their doctor,^{1,2,6} raising concerns about the potential

for adverse interactions with prescribed treatments.

Complementary and alternative medicine use is particularly common among people with musculoskeletal disorders.^{1,3} Population- and clinic-based data indicate that 28% to 90% of people with arthritis and other rheumatologic conditions use complementary and alternative medicine.⁴⁻⁸ Studies of patients with specific rheumatologic conditions (eg, fibromyalgia, osteoarthritis, systemic lupus erythematosus) demonstrate a similar degree of use. In general, people with a higher educational

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level, a longer duration of disease, poorer functional status, and higher levels of pain are more likely to use complementary and alternative medicine.^{4,7} Data also indicate that use (and the specific types used) varies by race and ethnicity.^{9,10}

Data From North Carolina

Population-based data document a geographic variation in complementary and alternative medicine use with higher rates

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reported by residents of the western United States.^{1,3} While the variation in rates may relate to the definition of complementary and alternative medicine used in the survey, it is also important to note, however, that complementary and alternative medicine use is not uncommon in the South.³

Data from studies of North Carolina residents underscore this point. In a study of 1059 adult residents of western North Carolina, nearly one-half (45.8%) reported using complementary and alternative medicine to treat their chronic conditions.¹¹ Although its use was not associated with the number of chronic conditions or health care utilization, people with less education were more likely to use honey-lemon-vinegar-whiskey combinations while people with greater education were more likely to have visited a complementary and alternative medicine practitioner. In a study of 211 rural community-dwelling adults with arthritis, Arcury and colleagues reported that complementary and alternative medicine use was common and they found differences in the types used based on race and ethnicity. African Americans were more likely to rely on prayer and topical treatments (eg, liniments, turpentine) than European Americans.⁹ Finally, in a study of 752 arthritis patients who were seen in 16 primary practices in rural and urban North Carolina, 89% reported using at least one complementary and alternative medicine.⁵ Interestingly, 71% of those who used at least one treatment discussed this behavior with the physician.⁵

Given the widespread interest in complementary and alternative medicine, it is not surprising that medical universities have developed integrative medicine programs. Three medical universities in North Carolina (Duke University, the University of North Carolina at Chapel Hill, and Wake Forest University) have established such programs to provide selected forms of complementary and alternative medicine treatment to patients and to conduct research.

Recent Data on Selected Complementary and Alternative Medicine Treatments for Arthritis

Complementary and alternative medicine is big business in the United States. Since the passage of the Dietary Supplemental Health and Education Act of 1994, dietary supplements and herbal products have become widely available. In 1997 an estimated 165 million adults (18.4% of all prescription users) used herbal medicines along with conventionally prescribed medications, and they spent \$5.1 billion dollars out-of-pocket on these remedies.² Furthermore, they made 629 million visits to alternative practitioners, far exceeding the total number of visits made to primary care providers in 1997.² An extensive review of complementary and alternative medicine therapies is beyond the scope of this commentary. Instead, I will highlight data on 2 treatments used for arthritis symptoms that have been the focus of recent investigation: glucosamine/chondroitin sulfate and acupuncture.

Since the 1980s glucosamine and chondroitin have been used to treat osteoarthritis, primarily in European countries.¹²

Notably, in Europe and other countries, glucosamine sulfate is approved as a prescription treatment for osteoarthritis.¹³ Glucosamine is a precursor to the glycosaminoglycan molecule, and chondroitin is the most abundant glycosaminoglycan found in cartilage.¹³ Short-term (4 to 6 week) controlled trials indicate that patients treated with glucosamine experience modest improvements in pain and function compared to those receiving placebo¹⁴ and experience treatment effects comparable to nonsteroidal anti-inflammatory drugs.¹⁵

Two recent meta-analyses that examined randomized trials of glucosamine and chondroitin report mixed conclusions regarding efficacy which may relate to the specific formulations of glucosamine used in the trials, methodologic concerns, and industry bias.^{12,16} A large multicenter trial was designed to address some of these concerns: patients with symptomatic knee osteoarthritis were randomized to glucosamine, chondroitin, glucosamine plus chondroitin, celecoxib, or placebo treatment for 24 weeks.¹⁷ Patients who were treated with glucosamine and chondroitin sulfate alone or in combination did not experience a significant improvement in pain compared to controls.¹⁷ Unfortunately, this trial involved treatment with glucosamine hydrochloride, a formulation that other investigators have concluded is not effective compared to the glucosamine sulfate formulation.^{16,18} At this time, patients who are considering using glucosamine for their osteoarthritis symptoms should be advised to take glucosamine sulfate rather than glucosamine hydrochloride, and those with severe pain might consider adding chondroitin sulfate to this regimen.¹⁸

Acupuncture is an important modality in traditional Chinese medicine that involves the transcutaneous placement of needles, sometimes with ancillary electrical current, heat, or moxibustion (ie, incense burning), to specific sites in order to restore the person's balance of vital energy (also known as qi or chi).¹⁹ Acupuncture, which is often used for pain relief, has been the focus of several recent trials. These trials have highlighted the methodological dilemma of finding an appropriate comparison to acupuncture. Sham acupuncture may stimulate pain inhibitory fibers or endorphin release while positive comparisons to a wait list control may be due to treatment expectations or placebo effects.²⁰

Witt and colleagues reported significant improvements in outcome among those who received acupuncture compared to a wait-list control group.²¹ These investigators also performed a 3-arm randomized trial in which one group received sham acupuncture.²² Compared to the sham acupuncture or wait-list control groups, the group who received acupuncture experienced significant improvements in pain and function immediately after receiving the entire intervention (12 acupuncture sessions over 8 weeks), but these improvements declined over time.²² Another study reported significant improvements in outcome when the acupuncture and sham acupuncture groups were compared to a wait list control group, but no differences when the acupuncture group was compared to the sham acupuncture group.²³ Given the heterogeneity of study findings and clinically minimal effects when acupuncture is compared to sham therapy, a recent meta-analysis concluded that it is premature to

recommend this treatment as part of routine care for knee osteoarthritis and suggested that clinicians and patients might consider acupuncture as one option in a multidisciplinary treatment approach.²⁰

Managing Patients Who Also Use Complementary and Alternative Medicine

Regardless of their particular beliefs about complementary and alternative medicine, physicians have an ethical obligation to discuss treatment alternatives with their patients. Although physicians should acknowledge their level of knowledge regarding complementary and alternative medicine during these discussions, they should also make sure that the patient has received information about the safety (eg, potency, drug interactions) and efficacy of these treatments.²⁴ Because patients' complementary and alternative medicine usage may change over time,²⁵ physicians should periodically review their patients' current regimens.

Since most alternative therapies are unproven, physicians may have legal concerns when they are asked to recommend specific complementary and alternative medicine treatments, provide referrals to practitioners, or tolerate continued use of these therapies. As a general rule, the mere referral to a complementary and alternative medicine practitioner does not expose the referring physician to liability unless the referral itself deprives the patient of receiving appropriate care (ie, referral delays or eliminates an opportunity to receive important care).²⁶ On the other hand, the physician could be held liable if he or she

recommends a complementary and alternative medicine that is associated with serious risks or is known to be ineffective.²⁷ Thus, when recommending specific complementary and alternative medicine, physicians should review the literature to determine the level of risk for the treatment, discuss the potential risks and benefits with the patient, document this discussion, and continue to monitor the patient conventionally.²⁷ When referring patients to complementary and alternative medicine practitioners, physicians should also inquire about the practitioner's credentials, competence, and practices.²⁷

Final Thoughts

People with rheumatologic conditions often use complementary and alternative medicine to treat their symptoms. To date, epidemiologic studies have focused on describing patients' use of complementary and alternative medicine and identifying predictors of this behavior. Given that many patients do not discuss their use of complementary and alternative medicine with their physicians, future investigations might focus on developing methods such as office-based tools to facilitate patient-provider communication regarding complementary and alternative medicine. Furthermore, complementary and alternative medicine is an evolving field as results emerge from efficacy studies of specific treatments. Clinicians should keep abreast of the findings of these trials because these data will be helpful in managing and advising patients who use such therapies. **NCMJ**

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