ACP Evidence-Based Guide to CAM Just Arrived in My Mail Box

July 30, 2011 By Mike Barr

It's a disappointingly diminutive (but costly: $59 for ACP members; $69 for non-members) volume--and paperback to boot, but still probably the first of its kind to tackle the broad field of what has come to be labeled complementary and alternative medicine (acupuncture, herbal (including both Western and Eastern traditions) medicine, chiropracty, massage, homeopathy) in this rigorous, if not entirely exhaustive, evidence-based way.

The book went to press in April 2008 and states that, at the time, there were 10,000 clinical trials of CAM modalities indexed in PubMed. So while the book will likely not include any research published within the last 3 years, it might still be worth familiarizing oneself with--as a sort of baseline as we eagerly await future volumes, of the ACP compendium or others like it.

The editors are Bradly P. Jacobs (MD, MPH) and Katherine Gundling (MD) of the, respectively, Bay area Institute for Healthy Aging at Cavallo Point (oh my god, sign me up for a weekend here ASAP) and the Department of Medicine at UCSF. Nearly two dozen other contributors hail from highly regarded medical centers such as Johns Hopkins, Mayo, Penn, UCLA, Exeter and National Jewish (University of Colorado at Denver).

After a brief introduction of definitions, criteria and clinical approach, Part II of the book is ingeniously broken down into 12 therapeutic categories (beware, this is an auto-loading .pdf)--gastrointestinal health, cancer, asthma, women's health, men's health, depression, for example--and then the CAM literature summarized, reviewed, discussed within each of these chapters. While I have not been able to access the full text online (although they do offer a Sample Chapter on General Medicine (beware, this is an auto-loading .pdf), the ACP website does freely publish a list of the studies/references for each of the 12 chapters. It can be accessed here.

The chapters of greatest interest to the Poz community are likely to be the ones on **Women's Health**, **Men's Health**, and **HIV**. I will work on summarizing these over the next week. Since so many of my friends (or even family) have been affected by mood disorders (not to mention substance abuse--both prescription and more illicit substances), I would also like to closely examine the chapters on Depression and Drug Interactions.

This looks to be a fun project for a spectacular, if somewhat sedate, summer sabbatical in one of the under appreciated Rust Belt states. I think what I will do is look at each of the clinical areas

that might be of interest to Poz readers and then try to do a quick and dirty bullet point summary of what modalities they looked at and then which ones met their criteria for safety and effectiveness.

On second thought, the most efficient method to breeze through all 458 pages might be to look at only those modalities where the **Magnitude of Effect** was Moderate (other choices were Small or None) and where the final **Clinical Recommendation** is either Weak in Favor or Strong in Favor--and I will note that below.

General Medicine
Anxiety
Strong in Favor: Relaxation training
Weak in Favor: Acupuncture

Common Cold
Weak in Favor: Echinacea purpurea extract (300 mg TID) (prevention & shorten duration)

(NB: I recently discovered that there are something like nine (and three commonly encountered) species of Echinacea. *Echinacea purpurea* is the one generally regarded as staving off the first signs of a cold or other URI (and even UTI?). It can also, so the story goes, be used topically for poorly healing wounds. *Echinacea pallida* is the variety used for influenze-type infections. The Mosby book from where I took this information noted that over half and possibly as much as 90% of the Echinacea sold in the U.S. up until 1991 was actually Missouri snakeroot (*Parthenium integrifolium*). So know your sources!)

Diabetes
Diabetic Neuropathy

Herpes Virus Infections
Genital Herpes
Weak in Favor: L-Lysine Monohydrochloride (3g QD) (prevention but NOT shorten duration)

(In vitro studies suggest that arginine-rich environments are critical for herpes virus function and growth (Klyachkin and colleagues, *Virology*, 2008; Griffith and colleagues, *Chemotherapy*, 1981). Foods containing more arginine than lysine include whole wheat, oats, chocolate, peanuts, walnuts, orange juice, and blueberries.)

(Migraine) Headaches
Strong in Favor: Biofeedback, CBT, stress mgt, relaxation training (migraine recurrence)
Strong in Favor: Acupuncture (for migraine recurrence)
Weak in Favor: Buterbur extract (liquid-carbon dioxide PA free) (migraine recurrence)

Recurrent UTIs
Strong in Favor: Cranberry supplement & juice (400 mg BID, 11% quinic acid or 8 03 unsweetened

juice TID) “Avoid cranberry juice cocktails as they contain minimal fruit content”

Gastrointestinal Health
(Non-ulcer) Dyspepsia
Strong in Favor: Peppermint oil combined with caraway oil
Weak in Favor: Artichoke leaf (2 x 320 mg TDS)

H. Pylori infection/eradication
Strong in Favor: Probiotics (dose varied from 0.2-1g/day) “Reduced AB-related diarrhea”

IBS
Weak in Favor: Tong Xie Yao Fang (Chinese Herbal Formula)
Weak in Favor: Hypnotherapy

IBS Pain
Strong in Favor: Peppermint extract/Peppermint + Caraway (“1-2 capsules TID”)
Weak in Favor: STW 5, STW 5-II

IBS Constipation
Weak in Favor: Fiber, Padma-Lax (Tibetan Formula) (1-2 capsules/day)

Diarrhea (adult & child)
Strong in Favor: Probiotics

Diarrhea (in children)
Weak in Favor: Carob bean juice; Apple pectin-chamomile extract

Rotavirus diarrhea (in children)
Weak in Favor: Tormentil root extract (3 drops TID)

Nausea/Vomiting/Motion Sickness
Weak in Favor: Ginger

Nausea/Vomiting (Pregnancy Induced)
Weak in Favor: Ginger

Nausea/Vomiting (Post-Operative)
Strong in Favor: Acupuncture stimulation of Pericardium 6; Ginger (0.3-1g/day)
Weak in Favor: Acupuncture

Nausea/Vomiting (Chemotherapy Induced)
Weak in Favor: Acupuncture stimulation of Pericardium 6

Ulcerative Colitis (acute)

Weak in Favor: Fish oil

Ulcerative Colitis (maintenance)
Weak in Favor: Probiotics

Pouchitis (inflammation of the ileal pouch)
Weak in Favor: Probiotics

Acute GI Pain
Weak in Favor: Acupuncture

Pre-Operative Anxiety
Weak in Favor: Acupuncture

Post-Op Pain
Weak in Favor: Acupuncture

Liver Disease
Chronic HBV
Promising herbs for HBV clearance: Phyllanthus, (not in the Asian cannon) Sophorae (Ku Shen); Jian Pi Wen Shen (a Japanese herbal formula)

GI Cancers
(Nothing in their analyses, up to April 2008)

Musculoskeletal
Low Back Pain (Acute)
Weak in Favor: Spinal manipulation

Low Back Pain (Chronic)
Weak in Favor: Acupuncture, yoga
(DevilÂ´s Claw (50-100mg/day), although Confidence of Estimate of Effectiveness got a C grade, was noted to “Appear to be effective compared to placebo.”)

Neck Pain (Acute or Chronic)
Weak in Favor: Spinal manipulation, electrotherapy (low level laser therapy)

Osteoarthritis of the Knee
Weak in Favor: Acupuncture, Glusoamine/Chondroitin (500mg/400mg TID) (the latter “for people with moderate-severe disease”)

("Controversy regarding whether glucosamine sulfate preparation (Rotta Pharmaceuticals) is superior to other preparations, including glucosamine hydrochloride.")

Lateral Epicondyle Pain (aka Tennis Elbow)
Carpal Tunnel Syndrome
Fibromyalgia

Obesity

Coronary Health
Primary and secondary CVD
Strong in Favor: Marine sources of omega-3 fatty acids (1g/d for secondary prevention; 1g twice a week for primary prevention)
Weak in Favor: Plant-derived sources of omega-3 fatty acids (1.5-3g/day)

CVD
Weak in Favor: Soy protein (50g)
Weak in Favor: Lignans (flaxseed) (25-50g)

Stable angina
Weak in Favor: L-carnitine (2g daily)

Secondary prevention
Strong in Favor: Ornish diet
Strong in Favor: Mediterranean diet
Weak in Favor: Transcendental meditation (in some places now called Vedic meditation)
Weak in Favor: Yoga

Primary prevention
Strong in Favor: Mediterranean diet
Weak in Favor: Ornish diet
Weak in Favor: Transcendental meditation (in some places now called Vedic meditation)
Weak in Favor: Yoga

Cancer
Chemotherapy and surgery induced nausea and vomiting
Strong in Favor: Behavioral interventions
Weak in Favor: Acupuncture

Pain
Weak in Favor: Acupuncture

Insomnia
Weak in Favor: Mind-body therapies

HIV
Progression of HIV disease

Weak in Favor: Multi-vitamin and multi-mineral

High triglycerides (usually a side-effect of medications)
Strong in Favor: Omega-3 fatty acids (3g/day)

Depression (relatively common side-effect of efavirenz (Sustiva/Stochrin/Atripla))
Weak in Favor: SAMe (200-800 mg/day)

High cholesterol (usually a side-effect of protease inhibitor type medications)
(Nothing in their analyses, up to April 2008)

Neuropathy (more often than not a side-effect of nucleoside analogue, especially stavudine (Zerit) but also didanosine (Videx), medications)
No recommendation: Acetyl-L-carnitine (1500 mg BID) ("Case series showed large benefit")
No recommendation: Acupuncture ("Conflicting results")

Women's Health
PMS
Weak in Favor: High fiber/low fat diet
Weak in Favor: Calcium (1200mg/day)
Weak in Favor: Vitamin B6 (50mg/day)

Dysmenorrhea
Strong in Favor: Transcutaneous nerve stimuation

(Chinese herbal medicine received a grade of "moderate" for Magnitude of Effect but "Unclear" under Safety category and thus "No Recommendation" could be made. Note adds: "Dozens of RCTs have been conducted showing moderate to large effects, however study quality is poor.")

Endometriosis
Uterine Fibroids

Infertility
Weak in Favor: Acupuncture

Menopausal Symptoms: Hot Flashes
Weak in Favor: Paced breath work

Osteoporosis
Strong in Favor: Calcium (1200mg/day) "Preferrable to combine with 800 IU vitamin D"
Strong in Favor: Vitamin D (800 IU/day)
Weak in Favor: Tai Chi (5 times/week)

Incontinence (Urinary)

Strong in Favor: Pelvic floor muscle training (regimens vary)
Weak in Favor: Behavioral training (regimens vary)

Men's Health
Androgen Deficiency
Strong in Favor: Testosterone (50-400mg IM; or 5-10g topical)

(I packed up the book for return before I could copy down a couple sentences on DHEA. From what I remember, the authors of that chapter were explaining that DHEA is converted into androstenedione (and possibly also androstenediol) before it can be made into estrogen and/or testosterone. An unidentified expert argues that, "Because DHEA must first be converted to androstenedione and then to testosterone in men, it has two chances to "aromatize" into estrogen--estrone from androstenedione, and estradiol from testosterone. As such, it is possible that supplementation with DHEA could increase estrogen levels more than testosterone levels in men." Here I would argue for the importance of imperical evidence :) --although recommended daily dosages (as well as dosing time: a.m vs. p.s.) are kind of all over the map. From purely personal experience, baby doses (10-12 mg/d, but only 2-3 times/week) seem more effective than these 50mg (the Martina et al., *Clin. Endocrinol,* 2006 study in "elderly males") and 300mg (the Alhaj et al., *Psychopharmacology*, 2006 memory and mood study in "health young men") daily doses from the "literature." I will try to figure out a way to get one more glimpse of those pages in the ACP CAM book.)

(This from Wikipedia: In March 2009, a bill was introduced in the U.S. Senate (S. 641) that attempts to classify DHEA as a controlled substance under the category of anabolic steroids. The sponsor is Charles Grassley (R-IA). The cosponsors are Richard Durbin (D-IL), and John McCain (R-AZ).[46] This bill was referred to the Senate Judiciary Committee. In December 2007, Charles Grassley introduced the "S. 2470: Dehydroepiandrosterone Abuse Reduction Act of 2007," in an attempt to amend the Controlled Substances Act to make "unlawful for any person to knowingly selling, causing another to sell, or conspiring to sell a product containing dehydroepiandrosterone to an individual under the age of 18 years, including any such sale using the Internet," without a prescription. Only civil (non-criminal) penalties are provided. The bill was read twice and referred to the Senate Judiciary Committee where it died. (In Canada, a prescription is required to buy DHEA.))

Athletic Fitness
Weak in Favor: Creatine (2-5g daily)

Sexual Performance
Premature ejaculation
Strong in Favor: Squeeze technique

Erectile dysfunction
Strong in Favor: Phosphodiesterase-5 inhibitors (but only where decreased circulation is the

underlying cause)
Weak in Favor: Carnitine (500-1000mg TID) (May be combined with a PDE-5 inhibitor.)
(L-Arginine (2-3g daily) is marketed as the "natural Viagra," but there is very limited evidence that it works--and should be used with caution in post-MI patients. Doses higher than 2-3g/day increase gastrin production in the stomach and may cause GI upset and aggravation of GERD or peptic ulcers. Arginine also "feeds" herpes virus replication.)

A double-blind controlled trial suggested that Yohimbe (derived from the bark of a West African tree) combined with L-Arginine, both taken at 6g daily, was effective for ED. This high a dose in post-MI men >60 years, however, may increase the risk of death. Yohimbe itself has safety concerns, and some experts recommend against using it because of risks of known side effects such as dizziness, anxiety, nausea, hypotension, abdominal pain, fatigue and hallucinations. In customary doses, however, it is generally well tolerated and appears to have "infrequent but serious adverse events and/or interaction safety concerns." "Given the very limited evidence for effectiveness [and] the ... potential safety concerns, it is premature to recommend Yohimbe for ED."

Benign Prostate Hypertrophy (BPH)
Weak in Favor: Saw palmetto (160mg BID)
Weak in Favor: Nettle root (stand alone or in combination with saw palmetto and pygeum)

Over 10 RCTs have shown that saw palmetto reduces nighttime urination, improves urinary flow and quality of life in men with BPH compared with placebo. There have been negative trials too, including a recent carefully designed study of 225 men that failed to show saw palmetto superior to placebo (Bent and colleagues, NEJM, 2006). Saw palmetto showed little to no toxicity in these controlled trials and is considered safe as a food substance.

Other herbs recommended for BPH include nettle root, pumpkin seed extract, and pygeum. **Nettle root** is a popular treatment in Europe for BPH. It is not as well studied as saw palmetto; there is moderate evidence to support a weak recommendation of nettle root for the treatment of BPH. **Pumpkin seed extract** or oil is also a popular treatment for BPH in Europe, and is on Germany's Commission E. Randomized, placebo-controlled studies have been limited to evaluating this therapy in combination with saw palmetto. There is limited evidence to support a weak recommendation for using pumpkin seed in combination with saw palmetto to treat BPH--and insufficient data to make a recommendation for its use as monotherapy. **Pygeum** is a tree native to central and southern Africa. Its bark has been used since ancient times to treat urinary problems. Today, pygeum is used to treat BPH. Many poorly designed placebo-controlled clinic trials have suggest an efficacy similar to saw palmetto. There is limited evidence to support a weak recommendation for pygeum in combination with saw palmetto for the treatment of BPH. It appears safe for both short- and long-term use, and there are infrequent, not serious adverse events or interactions.

Prostate cancer
Weak in Favor: Lycopene (4-8mg/day) "Dietary lycopene may be more effective"

Prostate cancer is the most common cancer in men. Recent evidence suggests that virtually all men will get prostate cancer if they live long enough. There are two types of prostate cancer: an aggressive type, which occurs in younger men and has the risk of metastases and death; and an indolent type, which occurs in old age and usually does not cause death.

A number of dietary interventions are being studied by the National Cancer Institute and the National Center for Complementary and Alternative Medicine to prevent prostate cancer. These include: selenium, vitamins D and E, lycopene (a carotenoid like beta-carotene found in high levels in tomatoes and pink grapefruit), phytoestrogens, flavonoids, and green tea polyphenols. PC-SPES is a formulation of eight natural products (seven herbs and one mushroom) and was released in 1996 as a treatment for prostate cancer.

Although the overall safety of **vitamin E** is being questioned, there are some data to suggest that vitamin E may help prevent prostate cancer. An epidemiological case-controlled study at John Hopkins showed decreased mortality from prostate cancer for both vitamin E and selenium--but only when *gamma*-tocopherol was included. This highlights the importance of recommending MIXED tocopherols as the preferred form of vitamin E and not just alpha-tocopherol. A large NIH study of vitamin E for the prevention of prostate cancer showed negative overall results but a *positive* effect for **gamma-tocopherol** in reducing prostate disease (Wright and colleagues, 2007). Because ingestion of supplemental vitamin E has been associated with an increase in overall mortality at doses of 400 IU or higher, its safety is in question. Finally, patients with Type 2 diabetes should not take supplemental vitamin E in doses of 400 IU or higher due to increased risks.

Lycopene is a carotenoid like beta-carotene that is found in high levels in tomatoes and pink grapefruit. Lycopene appears to exhibit about twice the antioxidant activity of beta-carotene and may be helpful for preventing cancer. In one observational study, ingesting a diet high in tomato products reduced cancer incidence by 50% in men and women, with fewer GI cancers along with a reduction in prostate cancer (Franceschi and colleagues, Int J Cancer, 1994). A 4-year observational study of 47,894 men showed that a diet rich in lycopene greatly reduced prostate cancer incidence (Giovannucci and colleagues, J Natl Cancer Inst, 1995). Lycopene appears in reasonably high levels in the human prostate, and there is evidence that lycopene might slow DNA synthesis in prostate cells, which could lower risk of prostate cancer. [That said,] there is [still very limited evidence to support a weak recommendation for lycopene for the prevention of prostate cancer. Dietary and supplemental lycopene is [nevertheless] considered relatively safe with infrequent, not serious adverse events or interactions.

Pilot studies suggested that **PC-SPES** may decrease PSA levels in prostate cancer patients; however, subsequent chemical analysis of batches sold over the counter showed that this product was adulterated with diethylstilbestrol (DES) as wellas as indomethacin and warfarin. Additional trials have shown PC-SPES to reduce PSA levels, but it may be that the effect was due to the DES and not the natural produces. Although these studies revealed promising results, there are significant safety concerns due to adulteration of the product.

While long-term controlled trials of CAM therapies to prevent or treat prostate cancer are lacking, there are observational studies that indicate lower rates among patients taking some of these supplements.

Longevity
Strong in Favor: Caloric restriction (daily low calories or intermittent fasting)

Depression
Major depressive disorder
Strong in Favor: Aerobic exercise (walking, running, swimming), 20-60 minutes 2-5x/week
Strong in Favor: SAMe (600-800mg BID)

Weak in Favor: Yoga breathing and/or poses; progressive muscle relaxation (as adjunct); autogenic training (as adjunct)
Weak in Favor: Phototherapy (exposure to bright light)
Weak in Favor: Folate (0.4-1mg/day) (as adjunct)
Weak in Favor: Saffron (30 mg QD)

Michael Barr is a board certified acupuncturist and herbalist and can be reached at Manhattan Acupuncture Associates, with offices at Columbus Circle and Flatiron. His expertise and interests include sports acupuncture, pain syndromes, liver health, immunological support, low energy, mood disorders, anxiety, insomnia, GI complaints, and herbal and acupuncture approaches to getting off/putting off prescription medications of unsatisfactory or unclear benefit, and in helping to manage the side-effects of other necessary and life-saving biomedical interventions. He has also been busy exploring the application of Chinese herbal therapies, and specific acupuncture protocols, for all aspects of sexual health and anti-senescence. More recently he has become involved with the Institute for Functional Medicine. Reach out to him at his new telemedicine platform, Root Resolution Health or for an invitation to his discounted herbal medicine and nutritional supplements dispensary.
