Taking a CAM approach to diabetes

OA Health Watch interviewed Daniel M. Van Arsdale, DO, an expert on complementary and alternative medicine (CAM), about using CAM in caring for patients with diabetes mellitus. Dr Van Arsdale is an assistant professor of Osteopathic Manipulative Medicine at the New York College of Osteopathic Medicine of New York Institute of Technology in Old Westbury and the program director of the Osteopathic Family Medicine Residency at Southampton (NY) Hospital.
Are complementary and alternative therapies a resource or a problem in the United States?

Dr Van Arsdale: In certain circumstances, they could be a problem. However, by and large, CAM therapies are a tremendous benefit.

For example, magnesium is an important factor in carbohydrate metabolism. Low serum magnesium is associated with insulin resistance and impaired glucose tolerance, and patients with diabetes tend to be magnesium deficient. Supplementation with magnesium can improve glucose control. I recommend 400 milligrams to 800 milligrams of magnesium citrate daily to my patients with diabetes.

Another supplement with known benefits for patients with diabetes is chromium picolinate. Chromium improves insulin sensitivity and glucose control. However, chromium supplementation can also lead to hypoglycemia. Therefore, patients should consult their physicians prior to initiating therapy. Typically, 200 micromilligrams to 500 micromilligrams of chromium is an appropriate dosage.

Can patients with diabetes get into trouble by taking certain supplements or herbs without consulting their physicians?

Dr Van Arsdale: Yes, they can. Taking only one or two supplements instead of a well-balanced combination can lead to undesired side effects.

Clinicians and patients need to be aware that certain herbs and minerals can lower blood glucose levels, so their addition to a treatment regimen needs to be monitored to avoid hypoglycemia. Osteopathic physicians can visit the Life Extension at Foundation’s Web site www.lef.org for examples of the kind of well-balanced supplements I recommend to patients I’m treating for diabetes.

Is there much evidence-based or other current research to support using herbal medications or acupuncture in the management of diabetes or the prevention of its complications?

Dr Van Arsdale: There is a substantial amount of evidence supporting the use of herbal medications in the treatment of patients with diabetes. When it comes to using acupuncture as a treatment for diabetes, most of the studies have been done on animals. Generally, the outcomes have been very positive. However, more extensive human trials need to be done.

Are you aware of any head-to-head comparative studies of different types of CAM therapies for people with diabetes?

Dr Van Arsdale: I just came across the AFFORD trial (Evaluating Atorvastatin With Omega-3 Fatty Acids in Cardiovascular Risk Reduction in Patients With Type 2 Diabetes), a British study that looked at the effect of an Omega-3 product on blood triglyceride levels and found that it marginally reduced triglyceride levels but not the overall estimated risk for cardiovascular disease.

Another study, the GISSI—Prevenzione Trial, looked at dietary supplementation with n-3 polyunsaturated fatty acids and vitamin E after myocardial infarction. The study showed that fish oil consumption appears to reduce risk of cardiovascular and total mortality in men who have had heart attacks. An ongoing study, the Outcome Reduction With Initial Glargine Intervention trial, known as the ORIGIN trial, is a multicenter, randomized study that is evaluating whether insulin glargine-mediated normoglycemia, and Omega-3 fatty acids can reduce cardiovascular morbidity and/or mortality in people.
at high risk for vascular disease with either impaired fasting glucose (IFG), impaired glucose tolerance (IGT) or early type 2 diabetes. The Origin Trial began in September 2003, and it is scheduled to be completed in October 2009.

On the subject of foods and nutrition, what foods would you recommend?

**Dr Van Arsdale:** Ever since the introduction of industrial farming methods in this country, the quality and nutritional value of our food supply has suffered. If patients can afford it, they should be eating organic products. Patients should avoid red meat and increase the amount of fresh fruits and vegetables in their diet.

Whole grain products should replace white and refined flour products, and everyone should be taking a high-potency multivitamin. Fish, particularly sardines and salmon, should be added to the diet. If palatability of fish is a concern, I recommend fish oil supplements.

**Should physicians discuss CAM therapies with their patients?**

**Dr Van Arsdale:** Absolutely. Most people use CAM therapies and don’t discuss what they are doing with their physicians, so physicians need to ask.

In fact, physicians should be sure to include a line on their work forms that asks, “Do you take vitamins, herbs or other complementary or alternative therapies?”

**How does osteopathic manipulative medicine fit into this? What therapies do you use in your practice?**

**Dr Van Arsdale:** While osteopathic manipulative medicine is not CAM therapy, it is another modality I use as adjunct care. I also use acupuncture and vitamins. I don’t generally use herbs.

**Where and why did you study acupuncture?**

**Dr Van Arsdale:** I became interested in acupuncture after a personal bout with plantar fasciitis. I saw an acupuncturist and was pain free after one treatment. Later, during my residency, I thought it might be a good service to offer my patients. I decided to study acupuncture at the Helms Medical Institute in Berkeley, California, because it was the premier acupuncture training program in the country. It is run by Joseph M. Helms, MD, and I would recommend it to any physician who wants to learn acupuncture.

**What is the best way for busy osteopathic primary care physicians to learn more about CAM therapies?**

**Dr Van Arsdale:** For the most part, they have to do the tough work of investigating each CAM treatment on their own.

A few organizations can help with the research, such as ACAM—the American College for the Advancement of Medicine. ACAM is a physician association that helps physicians learn more about alternative treatments.

The National Center for Complementary and Alternative Medicine is another good resource for scientific evidence on CAM treatments. And, as I already mentioned, the Helms Medical Institute has an excellent training program in acupuncture.

Andrew Weil, MD, an alternative medicine practitioner in Arizona, puts out a newsletter, which I find to be a good resource. The Life Extension Foundation offers well-annotated information about CAM treatments. The journals *Diabetes Care* and *American Journal of Clinical Nutrition* also contain a lot of good information regarding alternative approaches to the management of diabetes.