

[IMAGE]

Dynamic Chiropractic – October 6, 2003, Vol. 21, Issue 21

We Get Letters & E-Mail

Questioning the Effectiveness of *Coleus Forskohlii*

Dear Editor:

My father, a practicing chiropractor in New York, recently sent me Dr. Meschino's article about the herb *coleus forskohlii* from the June 2, 2003 edition of *Dynamic Chiropractic*. As a registered dietitian, I found Dr. Meschino's description of this herb's ability to burn fat stores both overly simplistic and optimistic. His "author's note" accompanying the article did little to change my perception that he has manipulated scientific evidence to create unwarranted hope and enthusiasm about the benefits of this supplement.

As Dr. Meschino explains, forskohlii does stimulate lipolysis in fat cells through increased levels of cyclic adenosine monophosphate (cAMP). However, he fails to mention that cAMP regulates hundreds of enzymes in each cell (whose activity can differ from cell to cell). For example, forskohlii stimulates glycogen breakdown in muscle cells and gluconeogenesis in liver cells. Because forskohlii stimulates extensive activities in nearly every cell of the body, prudence should be used in recommending this herb as a dietary supplement.

To date, research on the effectiveness of *coleus forskohlii* almost exclusively consists of test-tube studies, not human clinical trials. The one human study Dr. Meschino refers to is an uncontrolled trial of just six subjects who took 500mg of *coleus forskohlii* for eight weeks. Because subjects were not blinded and no placebo was used, the subjects' weight loss cannot be attributed to the supplement.

The safety of *coleus forskohlii* remains unknown and may actually cause serious adverse effects in people taking anticoagulant or anti-hypertensive medications, as well as those with low blood pressure. In addition, children and pregnant or lactating women should avoid supplements containing forskohlii. No one should take this supplement without physician supervision until more conclusive, human-based evidence emerges.

With heightened public concern and confusion about supplements, as evidenced by the recent controversy over ephedra, I am disappointed in Dr. Meschino's choice to inappropriately tout the unfounded benefits of this supplement. Future human clinical trials may prove that *coleus forskohlii* is a safe and effective

fat-burning herb, but until this time, consumers should be given unbiased, accurate, and judicious advice regarding all dietary supplements.

Karen Bryla, RD

Lexington, Kentucky

In Defense of *Coleus Forskohlii*: Dr. Meschino's Reply

Dear Editor:

I appreciate the response from Karen Bryla regarding my review of the scientific literature pertaining to the herb *coleus forskohlii* and its potential use as a natural agent to enhance the burning of fat. She states that research on the herb comes almost exclusively from test-tube studies, and that the safety of this herb remains unknown. To the contrary, I would recommend that Ms. Bryla and others peruse the chapter on *coleus forskohlii* in Dr. Michael Murray's book, *The Healing Power of Herbs*, a fully referenced clinical guide to the use of herbal agents, which serves as a primary resource to many holistic practitioners (Prima Publishing, revised 2nd edition, 1995). He cites numerous human clinical trials that have shown the therapeutic effects of the herb on various human health conditions, as well as the multitude of studies carried out in animals.

Moreover, *coleus forskohlii* has a long history of use in Ayurvedic, Siddha and Unani systems of medicine. As for its safety, toxicology studies have been carried out in a similar fashion as would apply to drugs or any other ingestible agent, and these studies have shown "an extremely low order of toxicity for *coleus forskohlii*."¹ A recent check of the MEDWATCH database regarding reported adverse events due to supplementation with vitamins, minerals, herbal agents and accessory nutrients (e.g., glucosamine, flaxseed oil) indicates that, despite its long history of availability and extensive use in natural medicine, no evidence to date has suggested that this herb produces any significant danger to the public.

The known potential side-effects and drug-nutrient interactions that pertain to the use of this herb were covered in my original article to ensure that practitioners who choose to recommend *coleus forskohlii* are able to do so in a safe and responsible manner. In my view, there was no need for Ms. Bryla to alarm the readers as to the fact that some adverse side-effects and drug-nutrient interactions exist, as if to imply that

they were irresponsibly omitted from the original article. The known side-effects and potential drug-nutrient interactions were accurately presented in the original article.

The intriguing fact is that it [the herb] increases cyclic AMP in a wide variety of tissues, as reviewed in the original article. This has profound effects on cardiovascular health, the bronchial tree, skin cells and other tissues. There are very few natural or manmade chemicals that can influence the body's biochemical function in this manner.

In recent years, evidence has suggested that fat cells also undergo an increase in cyclic AMP under the influence of *coleus forskohlii*. As many previous studies on adipose tissue indicate, a rise in cyclic AMP within adipocytes triggers the subsequent release of free fatty acid and glycerol to the bloodstream. In turn, free fatty acids are made available to skeletal muscle for burning through beta-oxidation, during aerobic metabolism. In theory, this would permit an individual to burn more fat per workout session, if he or she were previously challenged by a resistance to releasing fat from fat cells. This is often the case in overweight and obese patients who experience insulin resistance; the higher postprandial and baseline insulin levels in these patients tends to lock fat inside the fat cell, making it more difficult for these patients to burn fat, even when performing aerobic exercise. In a search to find a way to help normalize fat-burning in these patients, scientific experiments have been conducted on many different natural and synthetic agents over the years.

To this end, the experimental data on *coleus forskohlii* has provided a valid molecular model, with regards to its ability to counteract the decreased response of fat cells to lipolytic hormones, such as adrenaline, which normally encourages the release of fat from fat cells during aerobic exercise. The experimental data demonstrates that this herb possesses lipolytic behavior, via its influence on cyclic AMP levels. As such, *coleus forskohlii* demonstrates a novel and unique effect on fat metabolism and represents a very encouraging potential breakthrough for overweight patients who are challenged by resistance to fat-burning, secondary to insulin resistance.

Although large human trials are still lacking, as pointed out by Ms. Bryla, sufficient evidence to support the use of *coleus forskohlii* as a natural and safe lipolytic agent in humans has prompted its use by many practitioners, and this application of the herb is presented on the Web site supported by a United States federal agency.

In 1994, the U.S. government enacted the Dietary Supplement and Education Act. this end, the Dietary Supplement Education Alliance - a broad-based coalition of industry stakeholders - has produced a Web site to educate American consumers as to the safe and effective use of dietary supplements. The advisory board of the Dietary Supplement Information Bureau (DSIB) features a board of advisors assembled from the leading universities and teaching institutions across America.² It states:

"Researchers think coleus functions by a chain of biochemical reactions that may lead to increased thyroid activity, immunity, insulin secretion, and metabolism of fats. What's more, coleus may be involved in enhancing yet another complex chain of events that support strong, healthy, blood vessels and cardiovascular tissue."

A large number of health practitioners, including myself, have used coleus forskohlii as part of an overall strategy to help facilitate the burning of fat in overweight patients. Although anecdotal in nature, many of us have seen good results with the inclusion of coleus forskohlii supplementation in weight management cases. At the same time, numerous weight management supplements in the marketplace now contain coleus forskohlii as a featured ingredient, based upon its growing acceptance for this application, and its reported low order of toxicity and infrequent and mild known side-effects.

The intent of my article was to familiarize health practitioners with the biological action of this herb, and to make them aware that it is now a commonly included agent in many weight-management supplements. The original article explains the existing evidence to support the use of this herb with regard to this application. Based on the available experimental, animal and human studies presented in my original article, practitioners can decide for themselves if there is sufficient evidence with which to recommend coleus forskohlii supplementation to their weight management patients at this time. To suggest that coleus forskohlii is a dangerous supplement, and that human consumption of this herb is unwarranted until further studies are performed, argues against the existing body of evidence (including hundreds of years of use by humans, and detailed toxicology studies) demonstrating that this herb is safe.

James Meschino, DC, MS

Toronto, Ontario

Canada

www.renaissance.com

1. Murray M. *The Healing Power of Herbs*. Prima Publishing, revised 2nd edition, 1995:83-4.
 2. This Web site can be accessed at www.content.intramedicine.com.
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Three Cheers for Dr. Pate

Dear Editor:

Each time I receive a copy of *Dynamic Chiropractic*, I anxiously anticipate and hope it contains one of Dr. Deborah Pate's articles, all of which I have saved and filed. After reading her article, "Musculoskeletal Ultrasound," in the Aug. 16 issue, I felt compelled to write and compliment her on her work and imagery expertise.

I have been taking X-rays since 1952, when I entered the chiropractic profession, and at one time carried the title of "chiropractic and chiropractic X-ray specialist and expert witness" in the Baltimore and Maryland court systems. With the advent of CT, MRI and sonograms, I realized I had a great deal to learn - and continue learning. It is doctors such as Dr. Pate, and the articles she writes, that stimulate and encourage people such as myself to continue to study and learn the various imaging techniques so that I can be the best chiropractor I can be.

Charles N. Cooper, DC
Baltimore, Maryland

Remembering Fred Barge

Dear Editor:

There are few who make a continuous contribution to the chiropractic profession. Such a man was Dr. Fred Barge. Dr. Barge followed me as president of the Palmer Alumni Association. His contribution to the alumni group and to the profession, with his lectures, made a lasting impression on me personally, and I imagine thousands of others.

William M. Harris, DC
Alpharetta, Georgia

Buying Does Not Necessarily Equal Spending

Dear Editor:

The title of the July 14 graph on the front page of *Dynamic Chiropractic*, "Americans Buy More Drugs," is misleading. It should have said "Americans Spend More Money on Drugs." The price of drugs in the U.S. is higher than anywhere else in the world. Just because more money is spent, does not mean more drugs are bought.

Mik Hamilton, DC
Berkeley, California

"Building the profession builds your practice!"

Dear Editor:

Warning: I am writing this e-mail while I am mad! If you do not want to hear my vituperation [sustained or bitter railing or condemnation], stop reading now!

I attended a meeting of a business and professional networking organization meeting this morning as a guest of a business partner. As luck would have it, a young chiropractor was one of the speakers, presenting a profile of his business. The young doctor apparently thought he was just talking to a bunch of business people, and did not imagine that a chiropractor was in the audience.

The first part of his speech went well; he talked about the VSC and adjusting. He then went on to discuss how to find a "good" chiropractor by explaining what some chiropractors do - and how he was different! Here are the points he used:

"Look for a doctor that is board-certified. In Michigan, they used to require only parts one and two of the national boards. Recently, they added part three, and there are actually four parts of the boards. I have taken all four parts. Some doctors that are still practicing have not taken any boards. You should ask a potential chiropractor how many boards he or she has taken."

Some choice words come to my mind, but I will refrain from getting vulgar and just make the comment that boards do not make great chiropractors! Have any of you ever had a potential patient come into your office asking how many boards you have taken? It is irrelevant! I know many competent doctors who have never taken any boards!

"I like to spend time with my patients. I have spent up to an hour with some of them. I do not bill any differently if I spend more time with you. Some doctors spend very little time with patients. I actually had a doctor from the East side of the state brag to me about seeing 200 patients in a day! I don't know about you, but how can you give good care seeing that many patients?"

I was dumbfounded! I am sure many people in that audience had never heard about chiropractors seeing lots of patients in such a disparaging way. Now, a chiropractor was giving them new negatives to use to reflect on a profession! Again, do you really think a patient cares how many people you see in a day? What doctor (MD, DO, DC, etc.) spends an hour with his or her patients? "Busy" translates into "successful" in the mind of most patients! People like this just don't get it! If he spends an hour with patients - what in the world is he doing? An adjustment does not take that long, and most patients are smart enough to understand what a chiropractor does without you having to spend an hour having it explained to them!

But wait - it got better:

"Some doctors upcode. They bill for a low level of service and charge for a greater service. I only bill for what I do."

There is so much good to talk about in this profession, why talk about the bad? Why not give a testimonial of a successful patient? Oh, wait - he did that. It came next:

"A good doctor will refer you for appropriate care. I once had a patient who had back pain that did not respond to my care. I referred them out to a medical doctor and he diagnosed cancer of the spine. I know some chiropractors that think they can cure everything. You don't want to go to someone like that. A doctor has to know when to refer."

That is why he spends an hour with his patients. He probably refers all the rest out and has nothing else to do!

"Some chiropractors offer free first visits, including X-rays and exams. They don't make you pay your co-pay, and then they bill the insurance company. That is fraud. I only offer the members of this group a free first visit. I do not offer that to everyone!"

Let's see, chiropractors are frauds, they see too many patients, they claim to cure everything, and they overcharge! I couldn't wait to hear more good news!

"Some chiropractors offer unlimited care for a fixed fee. There is some question as to whether that is even legal in Michigan. They are acting like an insurance company. I only bill for each visit and as soon as a patient is better they can leave."

Needless to say, I went up to speak to the doctor after the meeting. What I said went something like this:

"Doc, I am sure you are too young to remember President Nixon. When Nixon was going through the Watergate debacle, he made the statement on national TV, 'I am not a crook.' To this day, when most people of that generation think of Nixon, they think of 'crook.' You just made a whole room full of people think of chiropractic and crooks. You cannot build yourself up by tearing your profession down. There is too much good to teach about our profession to be out here making us look like idiots."

He had no comment. Evidently, he must think I am one of the bad guys who give this profession a bad name. I don't think anyone could do a better job of making us look bad than he did this morning.

There is one positive element to this story. When the doctor was done tearing down our profession, a woman from the audience stood up and gave a testimonial on how chiropractic had saved her from migraines. I wish she had given the chiropractic talk instead of the chiropractor.

In closing - please don't be an idiot. Building the profession builds your practice! Tearing down the profession makes you look stupid for being a part of it!

Kerry Kilpatrick, DC

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