Folic Acid and Vitamin B12 May Help with Digestive Inflammation

By Greg Arnold, DC, CSCS, August 31, 2010, abstracted from “Serum vitamin B12 and folate status in patients with inflammatory bowel diseases” in the August 2010 issue of the European Journal of Internal Medicine

Inflammatory bowel disease is an inflammatory condition of the intestines that has no known cause, but is thought to involve an immune reaction of the body to its own intestinal lining. There are two forms of inflammatory bowel disease: ulcerative colitis (UC), which is limited to the colon, and Crohn’s Disease (CD), which can involve any part of the digestive system. It is estimated that over one million Americans suffer from either UC or CD (1).

Risk factors for inflammatory bowel disease include foods high in both sugar and fat (2). Ways to help limit intestinal inflammation include increasing dietary fiber (3), probiotics (4), fish oil and quercetin (5) and resveratrol (6). Now a new study (7) has found that folic acid and vitamin B12 may help with the inflammation that characterizes inflammatory bowel disease, especially in Crohn’s disease patients. In the study, 138 patients with diagnosed inflammatory bowel disease (45 with Crohn's disease and 93 with ulcerative colitis) provided blood samples to measure for vitamin B12 and folic acid. They were then compared to 53 healthy subjects who also provided blood samples.

When looking at blood levels of vitamin B12, those in the control group (342 picograms/milliliter) had 18 % higher levels than those in the Crohn’s Disease group (281 pg/mL) and nearly identical levels with those in the ulcerative colitis group (348 pg/mL). For folic acid, those in the control group (9.9 pg/mL) had 20% higher levels than the Crohn's patients (7.7 pg/mL) and 13% higher than the ulcerative colitis patients (8.6 pg/mL). When they looked at patients deficient in vitamin B12, they found deficient levels in 4 patients in the control group (7.5% of control patients) vs.10 in the Crohn’s group (22.2%) and 7 in the ulcerative colitis group (7.5%). For folic acid deficiency, they found two patients in the control group (3.7%) vs.13 in the Crohn’s group (28.8%) and 8 in the ulcerative colitis group (8.6%). They also found that intestinal surgery was also a risk factor for vitamin B12 deficiency in Crohn’s patients.

The researchers pointed to the ability of B12 and folic acid to lower homocysteine levels as their primary method of inflammation control (8, 9) and concluded that “[blood levels of] vitamin B12 and folate deficiencies are common in patients with CD compared to UC patients and controls” as well as “In CD patients, prior small intestinal surgery is an independent risk factor for having a low serum vitamin B12 level.”

Greg Arnold is a Chiropractic Physician practicing in Danville, CA. You can contact Dr. Arnold directly by emailing him at PitchingDoc@msn.com or visiting his web site at www.PitchingDoc.com

Reference:
1 “Inflammatory Bowel Disease” posted on the www.Emedicine.com website June 9, 2004
3 F. Fernandez-Bañares, J.L. Hinojosa and J.L. Sanchez-Lombrana et al., Randomized clinical trial of Plantago ovata seeds (dietary fiber) as compared with mesalamine in maintaining remission in ulcerative colitis, Am J Gastroenterol 94 (1999), pp. 427-433