

Using Herbs and Diet to Beat Crohn's Disease

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Crohn's disease is a chronic autoimmune disease of unknown cause, characterized by inflammation of the gut wall triggered by an attack from the immune system.

The immune system, which normally attacks invading viruses or bacteria, is somehow stimulated to attack the body's own tissue (in this case, the gut wall). A recent survey found there has been no change in the results from conventional treatment for Crohn's (such as drugs) in the past 40 years.¹ But there is hope. Recent medical research has identified several important factors that might trigger or feed the inflammation in Crohn's disease. In my experience, when herbs and dietary change are used to control or neutralize these factors, the inflammation is more or less alleviated.

A Genetic Cause?

Is there a genetic reason why some people get Crohn's disease? The answer seems to be yes. However, before you jump to the conclusion that it's all due to fate, the genetic defect linked to Crohn's disease actually gives us an insight into its cause. The defect is in a gene that encodes the protein known as CARD 15.² CARD 15 is involved in recognizing and activating the immune response to bacteria. So, a poor immune response to gut microbes could be a key piece in the jigsaw puzzle. This highlights a common misunderstanding about autoimmune disease. It's not due to a strong immune system that is too powerful. In fact, autoimmune disease, as illustrated above, most likely results when there is some weakness in the immune system. Under-responsiveness in one part of the immune system might lead to an excessive response in another part.

Crohn's Disease and Bacteria

Johne's disease, which occurs in cattle, is very similar to Crohn's disease. The main difference is that the cause of Johne's disease is known: a close relative of the bacterium that causes tuberculosis. This is known as *Mycobacterium avium* subspecies *paratuberculosis* or MAP for short. In 1984, a group of Italian researchers began a major scientific controversy when they found MAP in the intestinal tissue of patients with Crohn's disease.³ The implication was that, like Johne's disease, Crohn's disease also was caused by the presence of this micro-organism in the gut. Now, more than 20 years later, the evidence implicating MAP in Crohn's disease is strong.⁴ One factor behind this proof is the use of sophisticated gene techniques to find MAP, which are similar to those used by crime labs to identify victims or criminals.

Where does the MAP in humans come from? It seems it originates from consuming the milk from cows infected with Johne's disease. Pasteurization may not kill this organism and this has led British food authorities to advise dairy farmers not to release the milk from infected cows into the human food supply.

The amount of MAP found in Crohn's disease patients is not high, so whether the inflammation is directly caused by the bacterium or by the body's excessive immune response to its presence is not clear. But what is clear is that some respected medical authorities are now suggesting that eliminating MAP might improve the disease.⁵

Other gut bacteria such as *E. coli* have been implicated in Crohn's and may contribute to the chronic disease process.⁶ A leaky gut probably enables the breakdown products of such bacteria to enter the general circulation, further stirring up the immune system.⁷

Crohn's Disease and Diet

It might seem obvious that diet could be an important factor in Crohn's disease, since it is after all a chronic inflammation of the digestive tract. This is backed up by the well-known observation that Crohn's patients placed on an elemental diet (food broken down into its basic components such as amino acids, sugars, vitamins, etc) improve substantially.⁸ Clinical studies using elimination diets found that symptomatic improvement resulted when patients were placed on diets free of gluten, dairy products and yeast.⁹

The yeast aspect is particularly fascinating. Several studies have found that Crohn's disease patients have antibodies in their blood directed towards baker's or brewer's yeast (*Saccharomyces cerevisiae*).¹⁰ In fact, these antibodies are so characteristic their presence is now used as a diagnostic test for Crohn's.¹¹ While some scientists think this association is of no consequence, others feel removal of yeast from the diet could be beneficial.¹²

Herbs for Crohn's Disease

One of the key herbs for Crohn's disease is the Ayurvedic herb known as boswellia. The safety and efficacy of a boswellia extract was compared against mesalazine for the treatment of 102 patients with active Crohn's disease in an eight-week randomized, double-blind study.¹³ Mesalazine is a synthetic drug used as the standard anti-inflammatory treatment in Crohn's disease. The primary clinical outcome measured was the change in the Crohn's Disease Activity Index. After therapy with Boswellia extract (3.6 g per day), the average index was reduced by 90, compared to a reduction of only 53 for the mesalazine group (4.5 g per day).

Other herbs useful for Crohn's disease include garlic, golden seal and some essential oils (oregano and anise) to reduce pathogenic bacteria in the gut such as MAP. Either fresh, crushed garlic cloves or garlic powder product can be used. The latter mimics in the digestive tract what happens when you crush a fresh clove. In my practice, I use a bowel flora-rebuilding protocol which is based around these herbs.

The final herb I would recommend is echinacea - a good-quality product made from the root and high in alkylamides. I know this is controversial, but I have found this herb to be very beneficial in Crohn's disease. Remember that the genetics suggest Crohn's disease sufferers have poor immunity against gut pathogens such as MAP.

Finally, a key aspect of therapy is to follow a strict diet. The diet should be, at the very least, dairy- and

yeast-free, but other food intolerances also might need to be identified and dealt with.

Case History

"Anne," a 39-year-old woman, had suffered from Crohn's disease for 24 years. Lately (past 2.5 years), it was out of control. Anne had a stricture two inches from the rectum which made it difficult to control her bowel motions. Her main symptom was almost continuous diarrhea. Other symptoms included mouth ulcers, occasional high temperatures and chronically blocked sinuses. Conventional medications at the time of the first consultation were mesalazine 1,500 mg/day, oral prednisone (tapering off) and prednisone enemas daily. The enemas were needed because of the stricture and helped to control her bowel motions.

Anne was placed on the following protocol:

- Golden seal (1,500 mg per day) and slippery elm powder on a regular basis (she could not tolerate garlic);
- Tablets containing *Echinacea angustifolia* root (600 mg) and *Echinacea purpurea* root (675 mg), three per day;
- Tablets containing boswellia (1,200 mg), turmeric (2,000 mg), celery (1,000 mg) and ginger (300 mg), four per day; and
- A dairy- and yeast-free diet.

After five month's treatment there was great symptomatic improvement: "I no longer view travelling in terms of restroom stops." Anne had one relatively normal bowel motion per day. There were no mouth ulcers and the high temperatures had gone. Anne still was on her conventional medications, but the enemas were being tapered off and the prednisone was stopped.

After three years of treatment, this patient has no symptoms. Her only conventional medication is 1,000 mg/day mesalazine. Anne has been transformed from semi-invalid status to a lively outgoing person, full of energy and life. Her personality change was so profound her husband had difficulty coping with it at first, since he had only known her as a sick person.

References

1. Wolters FL, Russel MG, Stockbrugger RW. Systematic review: has disease outcome in Crohn's disease changed during the last four decades? *Aliment Pharmacol Ther*, 2004;20(5):483-96.
2. Diedergraeffe B. Giving the NOD to a new understanding of Crohn's disease: mother nature has finally started to show her CARDS. *Iflamm Bowel Dis*, 2004;0(2):171-2.
3. Chiodini RJ, Van Kruiningen HJ, Thayer WR, et al. Possible role of mycobacteria in inflammatory bowel disease. I. An unclassified Mycobacterium species isolated from patients with Crohn's disease. *Dig Dis Sci*, 1984;29(12):1073-9.
4. Greenstein RJ, Collins MT. Emerging pathogens: is Mycobacterium avium subspecies paratuberculosis zoonotic? *Lancet*, 2004;364(9432):396-7.
5. Chamberlin W, Graham DY, Hulten K, et al. Review article: Mycobacterium avium subsp. paratuberculosis as one cause of Crohn's disease *Aliment Pharmacol Ther* 2001;15(3):337-46.
6. Burke DA, Axon ATR. Adhesive Escherichia coli in inflammatory bowel disease and infective diarrhoea. *BMJ*, 1988;297(6641):102-4.
7. Olaison G, Sjodahl R, Tagesson C. Abnormal intestinal permeability in Crohn's disease. A possible pathogenic factor. *Scand J Gastroenterol*, 1990;25(4):321-8.
8. Okada M, Yao T, Yamamoto T, et al. Controlled trial comparing an elemental diet with prednisolone in the treatment of active Crohn's disease. *Hepatogastroenterol*, 1990;37(1):72-80.

9. Riordan AM, Hunter JO, Cowan RE et al. Treatment of active Crohn's disease by exclusion diet: East Anglian multicentre controlled trial *Lancet*, 1993;342(8880):1131-4.
10. Van Den Bogaerde J, Cahill J, Emmanuel AV, et al. Gut mucosal response to food antigens in Crohn's disease *Aliment Pharmacol Ther*, 2002; 16(11):1903-15.
11. Teml A, Kratzer V, Schneider B, et al. Anti-saccharomyces cerevisiae antibodies: a stable marker for Crohn's disease during steroid and 5-aminosalicylic acid treatment. *Am J Gastroenterol*, 2003;98(10):2226-31.
12. Oshitani N, Hato F, Suzuki K, et al. Cross-reactivity of yeast antigens in human colon and peripheral leukocytes. *J Pathol*, 2003;199(3):361-7.
13. Gerhardt H, Seifert F, Buvari P, et al. Therapy of active Crohn's disease with *Boswellia serrata* extract H 15. *Z Gastroenterol*, 2001;39(1):11-7.

MAY 2008