

Crohn's Disease

Patient Symptoms: A 54-year old Patient presented with Crohn's Disease diagnosed in 2004. At the time of the initial visit, he weighed 165 lbs at 5'9" and his blood pressure was 125/68.

- Nausea
- Indigestion ☐
- Low energy
- Drowsiness After Eating
- Red eyes
- Dermatitis on Face
- Soft/Splitting Fingernails
- Gas ☐

06-13-07 A 54-year old Patient presented with Crohn's Disease diagnosed in 2004, but he has suffered from digestive troubles since he was a boy. There are many severity levels of Crohn's Disease but in this case symptoms were "mild". The patient mostly felt sick to the stomach and nauseous in the mornings, but never vomited. He suffered from indigestion and gas and an Endoscopy showed multiple lesions in his GI track. His fingernails were soft and splitting, and the beds were very pale which can be signs of nutritional deficiencies. Other symptoms included dermatitis on his face, dry skin, red eyes, and low energy. He often falls asleep within 20 minutes of eating dinner and has low energy. Many people with Crohn's are prescribed a variety of drugs by their medical doctors including anti-inflammatories, Cortisone or Steroids and immune system suppressors, but the patient was taking no medications.

07-17-07

Results of Initial Blood Test:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
Uric Acid	06/26/2007	4.20	Opt			4.10 - 6.00	2.40 - 8.20
BUN (Blood Urea Nitrogen)		14.00	Opt			13.00 - 18.00	5.00 - 26.00
Creatinine		1.10	hi			0.61 - 0.90	0.50 - 1.50
BUN / Creatinine Ratio		13.00	lo			13.00 - 20.00	8.00 - 27.00
Calcium		9.20	lo			9.70 - 10.00	8.50 - 10.60
Phosphorus		3.40	lo			3.40 - 4.00	2.50 - 4.50
Calcium/Albumin Ratio		2.19	Opt			2.10 - 2.50	2.03 - 2.71
Total Protein		6.80	lo			7.11 - 7.61	6.00 - 8.50
Albumin		4.20	Opt			4.10 - 4.50	3.60 - 4.80
Globulin		2.60	lo			2.81 - 3.51	1.50 - 4.50
A/G Ratio		1.60	Opt			1.22 - 1.60	1.10 - 2.50
Total Bilirubin		0.70	Opt			0.39 - 0.93	0.10 - 1.20
Creatine Kinase		43.00	lo			64.00 - 133.00	24.00 - 204.00
LDH		123.00	Opt			120.00 - 160.00	100.00 - 250.00
SGOT (AST) (AST)		13.00	lo			15.00 - 26.00	6.00 - 40.00
SGPT (ALT) (ALT)		19.00	Opt			15.00 - 26.00	6.00 - 55.00
GGT		12.00	lo			22.00 - 39.00	6.00 - 65.00
White Blood Count		6.50	Opt			5.00 - 8.00	4.00 - 10.50
Red Blood Count		4.86	Opt			4.50 - 5.50	4.10 - 5.60
Hemoglobin		15.50	hi			13.30 - 15.20	11.50 - 17.00
Hematocrit		45.40	Opt			39.50 - 47.00	34.00 - 50.00
MCV		93.00	Opt			85.00 - 97.00	80.00 - 98.00
MCH		31.90	Opt			28.10 - 32.00	27.00 - 34.00
MCHC		34.20	hi			33.00 - 34.00	32.00 - 36.00
RDW		13.10	lo			13.50 - 14.50	13.00 - 15.00
Platelets		210.00	Opt			175.00 - 250.00	140.00 - 415.00
Polys/Neutrophils (SEGS-PMNS)		48.00	lo			55.00 - 65.00	40.00 - 74.00
Lymphocytes		40.00	Opt			25.00 - 40.00	14.00 - 46.00
Monocytes		6.00	Opt			5.00 - 7.00	4.00 - 13.00
Eosinophils		5.00	hi			0.00 - 4.10	0.00 - 7.00
Basophils		1.00	hi			0.00 - 0.00	0.00 - 3.00
Neutrophils/Polys (Absolute)		3.10	lo			3.80 - 5.80	1.80 - 7.80
Lymphs (Absolute)		2.60	Opt			2.00 - 3.20	0.70 - 4.50
Monocytes (Absolute)		0.40	lo			0.40 - 0.70	0.10 - 1.00
Eosinophils (Absolute)		0.30	hi			0.00 - 0.20	0.00 - 0.40
Basophils (Absolute)		0.10	Opt			0.00 - 0.10	0.00 - 0.20
ESR-Erythrocyte Sed Rate, Westerg		2.00	Opt			0.00 - 8.00	0.00 - 20.00
CRP C-Reactive Protein		0.30	Opt			0.00 - 1.50	0.00 - 4.90

Blue ■ clinically very high or clinically very low

Red ■ clinically high or clinically low

Yellow ■ a little high or a little low; this can be considered a warning sign that the value is not optimal.

Initial blood tests showed many values that were a little low or out of balance and nearly every one can be caused by malnutrition, dehydration or inflammation. This was not greatly surprising because with Crohn's Disease the GI track becomes inflamed and can affect the body's ability to digest and absorb food as well as create loose bowels or diarrhea which can cause malnourishment and dehydration. Poor digestion can be seen in the BUN/Creatine ratio, Calcium, Protein, Globulin, and Phosphorus. We also see signs of dehydration in the Creatinine, SGOT, GGT, and MCHC and inflammation with the Basophils and Polys/Neutrophils.

Results of Initial Tissue Mineral Analysis: 07-17-07

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
Toxic Elements							
Aluminum	06/25/2007	21.00	HI			0- 5.20	5.21- 12.00
Antimony		0.02	Opt			0- 0.03	0.04- 0.06
Arsenic		0.05	hi			0- 0.05	0.06- 0.08
Essential Elements							
Calcium		239.00	LO			400.00- 417.00	375.00- 1100.00
Magnesium		54.00	hi			43.00- 48.00	40.00- 140.00
Sodium		26.00	Opt			25.00- 35.00	12.00- 90.00
Potassium		22.00	hi			21.00- 22.00	20.00- 90.00
Copper		22.00	hi			12.00- 15.00	9.00- 26.00
Zinc		180.00	hi			150.00- 165.00	130.00- 200.00
Manganese		0.07	LO			0.22- 0.31	0.15- 0.65
Chromium		0.31	Opt			0.25- 0.31	0.20- 0.45
Vanadium		0.03	lo			0.04- 0.05	0.02- 0.06
Molybdenum		0.07	Opt			0.06- 0.07	0.04- 0.10
Boron		2.70	hi			0.10- 1.40	0.70- 4.00
Iodine		0.14	LO			0.32- 0.55	0.25- 1.30
Lithium		0.01	LO			0.01- 0.01	0.01- 0.02
Phosphorus		214.00	Opt			190.00- 220.00	160.00- 250.00
Selenium		0.86	LO			1.10- 1.45	0.95- 1.70
Strontium		2.00	hi			1.40- 1.80	1.00- 6.00
Sulfur		41300.00	LO			45000.00- 45500.00	44500.00- 52000.00
Barium		0.55	lo			1.20- 1.45	0.50- 3.00
Cobalt		0.00	LO			0.02- 0.03	0.01- 0.04
Iron		5.00	LO			7.00- 8.50	5.80- 14.00
Germanium		0.02	LO			0.05- 0.05	0.05- 0.06
Rubidium		0.01	LO			0.03- 0.09	0.03- 0.25

Results of Initial Urinary Chelation Challenge:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
Agent	07/06/2007	DMSA		07/04/2007			
Dose		1500mg		Pre-Chall			
Interval		6		6			
Toxic Elements							
Lead (UA)		18.00	HI	0.60	⊖	0- 4.00	4.01- 5.00
Mercury (UA)		10.00	HI	3.40	⊖	0- 2.00	2.01- 3.00
Nickel (UA)		3.80	Opt	5.00	⊕	0- 5.00	5.01- 10.00

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 Red = clinically high or clinically low
 Yellow = a little high or a little low; this can be considered a warning sign that the value is not optimal.

We are exposed to toxic elements every day in our environment, yet very few toxic elements appeared in the patient's tissue mineral analysis indicating they may be getting stuck somewhere in the body. Aluminum did return very high which can displace good minerals and is especially bad in Crohn's patients who already have trouble with malabsorption. Many of the deficiencies in the essential element portion of the test were significantly below the clinically healthy levels! With the lack of toxins being expelled through the hair, it was important to conduct a urinary chelation challenge to see what may be lingering in the body. Not many toxins came out in the pre-challenge, but when we had the patient take a chelator called DMSA to flush everything out, the numbers jumped to very unhealthy levels - specifically Lead and Mercury which can lead to organ dysfunction and cause various problems with the digestive tract including Crohn's Disease.

Besides dealing with the main symptoms associated with Crohn's – abdominal pain/cramping and loose stools/diarrhea - many other areas can be affected largely due to the lack of nutrients absorbed by the body. Typically Crohn's patients are more likely to develop rectal bleeding, arthritis, skin conditions, weight loss, sores, ulcers, and colon cancer. To prevent these complications, the patient needs to be as healthy as possible by providing his body with extra nutrients and soothing supplements to help the digestive tract do its job. Reviewing some of the low findings on the hair test, the Manganese is essential for metabolism of protein and Cobalt stimulates vitamin B12 activity. B12 can be very low in Crohn's cases because inflammation commonly occurs at the ileum which is the final section of small intestine before the large intestine begins. The ileum is responsible for absorbing B12 but when inflamed may not be able to do so. The patient should eat more cobalt rich foods like eggs to help prevent anemia and other B12 deficient problems. Also important is Selenium which is an antioxidant that helps prevent chromosomal damage and promotes cellular function. Selenium deficiencies have also been associated with many types of cancers. Sulfur is vital to the production of bile acids and contributes to the digestion and absorption of fat, and Calcium is vital to the bones. It's essential that the patient begin taking nutrients and minerals to turn around these deficiencies before another major problem develops. Along with supplements to boost the low numbers, the patient was started on a basic whole food diet, avoiding all dairy and other foods which may irritate the digestive tract.

Results of 2nd Blood Test:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	10/03/2007			06/26/2007			
Uric Acid		4.60	Opt	4.20		4.10 - 6.00	2.40 - 8.20
BUN (Blood Urea Nitrogen)		15.00	Opt	14.00		13.00 - 18.00	5.00 - 26.00
Creatinine		1.20	hi	1.10	⊖	0.61 - 0.90	0.50 - 1.50
BUN / Creatinine Ratio		13.00	lo	13.00	⊖	13.00 - 20.00	8.00 - 27.00
Calcium		9.60	lo	9.20	⊖	9.70 - 10.00	8.50 - 10.60
Phosphorus		3.00	lo	3.40	⊖	3.40 - 4.00	2.50 - 4.50
Calcium/Albumin Ratio		2.18	Opt	2.19		2.10 - 2.50	2.03 - 2.71
Total Protein		6.90	lo	6.80	⊖	7.11 - 7.61	6.00 - 8.50
Albumin		4.40	Opt	4.20		4.10 - 4.50	3.60 - 4.80
Globulin		2.50	lo	2.60	⊖	2.81 - 3.51	1.50 - 4.50
A/G Ratio		1.80	hi	1.60	⊖	1.22 - 1.60	1.10 - 2.50
Total Bilirubin		0.50	Opt	0.70		0.39 - 0.93	0.10 - 1.20
Creatine Kinase		42.00	lo	43.00	⊖	64.00 - 133.00	24.00 - 173.00
LDH		128.00	Opt	123.00		120.00 - 160.00	100.00 - 250.00
SGOT (AST) (AST)		18.00	Opt	13.00	⊖	15.00 - 26.00	6.00 - 40.00
SGPT (ALT) (ALT)		22.00	Opt	19.00		15.00 - 26.00	6.00 - 55.00
GGT		11.00	lo	12.00	⊖	22.00 - 39.00	6.00 - 65.00
White Blood Count		5.30	Opt	6.50		5.00 - 8.00	4.00 - 10.50
Red Blood Count		5.03	Opt	4.86		4.50 - 5.50	4.10 - 5.60
Hemoglobin		15.90	hi	15.50	⊖	13.30 - 15.20	11.50 - 17.00
Hematocrit		46.70	Opt	45.40		39.50 - 47.00	34.00 - 50.00
MCV		93.00	Opt	93.00		85.00 - 97.00	80.00 - 98.00
MCH		31.60	Opt	31.90		28.10 - 32.00	27.00 - 34.00
MCHC		34.00	Opt	34.20	⊖	33.00 - 34.00	32.00 - 36.00
RDW		12.70	LO	13.10	⊖	13.50 - 14.50	13.00 - 15.00
Platelets		211.00	Opt	210.00		175.00 - 250.00	140.00 - 415.00
Polys/Neutrophils (SEGS-PMNS)		44.00	lo	48.00	⊖	55.00 - 65.00	40.00 - 74.00
Lymphocytes		35.00	Opt	40.00		25.00 - 40.00	14.00 - 46.00
Monocytes		13.00	hi	6.00	⊖	5.00 - 7.00	4.00 - 13.00
Eosinophils		7.00	hi	5.00	⊖	0.00 - 4.10	0.00 - 7.00
Basophils		1.00	hi	1.00	⊖	0.00 - 0.00	0.00 - 3.00
Neutrophils/Polys (Absolute)		2.30	lo	3.10	⊖	3.80 - 5.80	1.80 - 7.80
Lymphs (Absolute)		1.90	lo	2.60	⊖	2.00 - 3.20	0.70 - 4.50
Monocytes (Absolute)		0.70	Opt	0.40	⊖	0.40 - 0.70	0.10 - 1.00
Eosinophils (Absolute)		0.40	hi	0.30	⊖	0.00 - 0.20	0.00 - 0.40
Basophils (Absolute)		0.10	Opt	0.10		0.00 - 0.10	0.00 - 0.20
ESR-Ervthrocyte Sed Rate, Westerar		2.00	Opt	2.00		0.00 - 6.00	0.00 - 20.00

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07-22-08 With the heavy metals continually decreasing, the blood test values start improving, specifically the differentials in the complete blood count such as Polys/Neutrophils, Monocytes and Eosinophils. Adding a little extra protein to his diet will help with a few of the other numbers. Based on these results, it appears his Crohn's is under control and the patient agrees!

10-06-07 After three months of care, the patient noticed many improvements with energy levels, indigestion, stomach fat, and dermatitis. He no longer falls asleep after meals and his fingernails hardened and no longer split.

Results of 3rd Blood Test:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	07/09/2008			10/03/2007			
Uric Acid		4.50	Opt	4.60		4.10 - 6.00	2.40 - 8.20
BUN (Blood Urea Nitrogen)		16.00	Opt	15.00		13.00 - 18.00	5.00 - 26.00
Creatinine		1.20	hi	1.20	⊖	0.61 - 0.90	0.50 - 1.50
GFR EST (Glomerular Filtration R		60.00	Opt			60.00 - 127.00	60.00 - 128.00
BUN / Creatinine Ratio		13.00	lo	13.00	⊖	13.00 - 20.00	8.00 - 27.00
Calcium		9.30	lo	9.60	⊖	9.70 - 10.00	8.50 - 10.60
Phosphorus		2.70	lo	3.00	⊖	3.40 - 4.00	2.50 - 4.50
Calcium/Albumin Ratio				2.18		2.10 - 2.50	2.03 - 2.71
Total Protein		6.70	lo	6.90	⊖	7.11 - 7.61	6.00 - 8.50
Albumin		4.20	Opt	4.40		4.10 - 4.50	3.60 - 4.80
Globulin		2.50	lo	2.50	⊖	2.81 - 3.51	1.50 - 4.50
A/G Ratio		1.70	hi	1.80	⊖	1.22 - 1.60	1.10 - 2.50
Total Bilirubin		0.40	Opt	0.50		0.39 - 0.93	0.10 - 1.20
Creatine Kinase		42.00	lo	42.00	⊖	64.00 - 133.00	24.00 - 173.00
LDH		127.00	Opt	128.00		120.00 - 160.00	100.00 - 250.00
SGOT (AST) (AST)		16.00	Opt	18.00		15.00 - 26.00	6.00 - 40.00
SGPT (ALT) (ALT)		26.00	Opt	22.00		15.00 - 26.00	6.00 - 55.00
GGT		12.00	lo	11.00	⊖	22.00 - 39.00	6.00 - 65.00
White Blood Count		5.60	Opt	5.30		5.00 - 8.00	4.00 - 10.50
Red Blood Count		4.97	Opt	5.03		4.50 - 5.50	4.10 - 5.60
Hemoglobin		15.30	hi	15.90	⊖	13.30 - 15.20	11.50 - 17.00
Hematocrit		45.50	Opt	46.70		39.50 - 47.00	34.00 - 50.00
MCV		92.00	Opt	93.00		85.00 - 97.00	80.00 - 98.00
MCH		30.80	Opt	31.60		28.10 - 32.00	27.00 - 34.00
MCHC		33.60	Opt	34.00		33.00 - 34.00	32.00 - 36.00
RDW		13.60	Opt	12.70	⊖	11.10 - 14.50	11.00 - 15.00
Platelets		191.00	Opt	211.00		175.00 - 250.00	140.00 - 415.00
Polys/Neutrophils (SEGS-PMNS)		52.00	lo	44.00	⊖	55.00 - 65.00	40.00 - 74.00
Lymphocytes		36.00	Opt	35.00		25.00 - 40.00	14.00 - 46.00
Monocytes		6.00	Opt	13.00	⊖	5.00 - 7.00	4.00 - 13.00
Eosinophils		5.00	hi	7.00	⊖	0.00 - 4.10	0.00 - 7.00
Basophils		1.00	hi	1.00	⊖	0.00 - 0.00	0.00 - 3.00
Neutrophils/Polys (Absolute)		2.90	lo	2.30	⊖	3.80 - 5.80	1.80 - 7.80
Lymphs (Absolute)		2.00	lo	1.90	⊖	2.00 - 3.20	0.70 - 4.50
Monocytes (Absolute)		0.30	lo	0.70	⊖	0.40 - 0.70	0.10 - 1.00
Eosinophils (Absolute)		0.30	hi	0.40	⊖	0.00 - 0.20	0.00 - 0.40
Basophils (Absolute)		0.10	Opt	0.10		0.00 - 0.10	0.00 - 0.20
ESR-Erythrocyte Sed Rate, Westerg		2.00	Opt	2.00		0.00 - 6.00	0.00 - 20.00

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Final thoughts:

Crohn's disease is both an autoimmune disorder and inflammatory bowel disease where white blood cells attack mistaken "foreign invaders" in the GI track. What makes Crohn's different from other inflammatory bowel conditions such as Irritable Bowel Syndrome (IBS) or Ulcerative Colitis is that the inflammation can occur anywhere in the GI track from the mouth, esophagus, stomach, small intestines, large intestines, rectum, all the way down to the anus. The complications of this disease can be devastating to the body. With the help of a strict diet and supplements, this patient was able to increase his digestive ability allowing for better absorption of essential nutrients and decreased cramping and nausea caused by the Crohn's. It is especially important for patients with this type of disease to get tested; because we know the body is not able to process all the nutrients it needs for day to day activities and can easily become malnourished.