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## NUTRITIONAL SUPPORT USING ULTRAINFLAMX® MEDICAL FOOD IN A PATIENT WITH IRRITABLE BOWEL SYNDROME (IBS)

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### Purpose

The purpose of this study was to show how targeted nutritional support using UltraInflamX medical food can benefit a patient with IBS.

### Patient's Presentation and History

A 25-year-old Caucasian female presented with alternating diarrhea/constipation, about one normal bowel movement (BM) per week, and bloating for 1 to 2 hours after most meals often accompanied by pain in the lower right quadrant. Although she had recently been diagnosed with IBS, her symptoms began at age 12 that resulting in exploratory surgery. A "twisted intestine" was found and repaired; however, this did not relieve her symptoms.

Between the ages of 20 and 25, she had several severe episodes that sent her to the emergency room with dehydration, diarrhea, and vomiting. Investigations by lower abdominal ultrasound, abdominal CAT scan, and colonoscopy were negative.

The patient also reported a history of migraines occurring since childhood, frequent tension headaches, and heavy menstrual flow with affective symptoms and headaches. She noted reactions to milk, nuts, and eggs. Her history also included multiple courses of antibiotics, ruptured ovarian cysts, and appendix removal. She had paternal history of hypertension and a sibling with digestive problems.

### Patient's Objective Information

- Height: 64"; weight: 138 lb; blood pressure: 92/62
- Physical exam: tenderness in right-lower quadrant; slightly dry skin
- Medications and supplements: sumatriptan succinate, as needed for migraines; multiple vitamin/mineral, daily
- Stool analysis indicated very low sIgA (65% dry wt; reference range: 400%-800% dry wt) and low chymotrypsin (8 U/10g; reference range: >9 U/10g), suggesting dysbiosis
- CBC showed borderline-low hematocrit (36.8%; ref. range 37%-47%)
- Elevated Medical Symptoms Questionnaire (MSQ)\* and IBS Symptoms Questionnaire† scores, indicating substantial IBS symptoms

### Plan

The patient was instructed to begin:

- UltraInflamX, ¼ scoop twice daily, increasing to 2 scoops twice daily over 1-2 weeks as tolerated
- Food allergy/intolerance elimination diet

### 1 Week Results

After 1 week, the patient was still titrating up to the full dose of UltraInflamX. She indicated a 50% improvement, with normal BMs about 1 to 2 times per day and a decrease in lower abdominal tenderness. She also said that, for the first time in many years, she was not bloated and had more energy. Because of low chymotrypsin results on stool analysis, the patient was instructed to add vegetarian enzymes for pancreatic function, 1 tablet with meals.

### 3 Week Results

After 3 weeks, the patient was at the full dose of UltraInflamX (2 scoops twice daily) and continued to improve. Her pain had decreased from 10 to about 4 (on a scale of 1 to 10) and she noted only about 4 to 5 days with loose stools since starting the intervention. She was instructed to continue at full dose for 2 weeks, then decrease gradually to 1 serving per day and begin food reintroduction. Probiotic support with *Lactobacillus acidophilus* NCFM® and *Bifidobacterium lactis* (strain BI-07) was also provided at 1 capsule twice daily.

### 11 Week Results

The patient reported excellent improvement in her symptoms before she began food reintroduction. She noted cramping, bloating, and diarrhea with wheat and constipation with dairy. Symptoms from food reintroduction resolved within a couple days after discontinuing the offending food. The patient was instructed to continue the current program and add herbal antispasmodic gastrointestinal (GI) support (1 to 2 capsules as needed) for abdominal discomfort.

### 17 Week Results

After 17 weeks, the patient continued to do well. She noted that dairy, wheat, and sugar seemed to cause most of her symptoms. She was frequently taking the herbal antispasmodic GI support supplement and maintaining the full dose of UltraInflamX. She did complain of some heartburn. The patient was to continue the current program, but stop the vegetarian enzymes for pancreatic support and add nutritional support for the upper GI at 1 Tbsp. twice daily. The patient was also encouraged to use deglycyrrhized licorice, as needed, for heartburn.

### 23 Week Results

At her 23-week follow-up, the patient reported feeling "great" overall. She had no problems, except for gas and bloating when she ate foods containing eggs.

### Conclusion

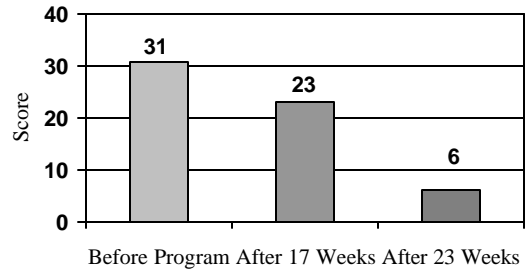
The patient continued on the program successfully for an additional 3 months and was then transitioned to a maintenance program with success. This case suggests that nutritional support with UltraInflamX medical food, a food allergy/intolerance elimination diet, and targeted support for GI function can be beneficial in some patients with IBS.

**Figure 1**

After 23 weeks, the patient's MSQ score decreased from 31 to 6 (reference range: < 30 = few or low intensity symptoms).

This result suggests a very substantial improvement in the patient's general physical symptoms with the incorporation of UltraInflamX, a food allergy/intolerance elimination diet, and targeted support for GI function.

**81% Decrease in MSQ Score**

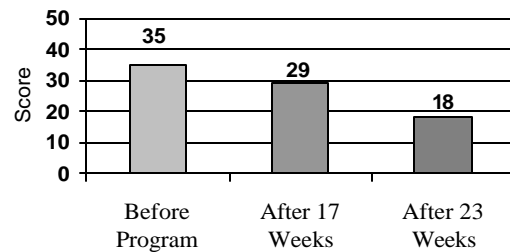


**Figure 2**

The patient's score on the IBS Symptoms Frequency Questionnaire<sup>†</sup> decreased from 35 to 18 (reference range: < 20 = infrequent or no symptoms) after 23 weeks.

The result suggests a clinically relevant decrease in the frequency of bothersome IBS symptoms with the inclusion of UltraInflamX, dietary changes, and targeted support for GI function.

**49% Decrease in IBS Symptoms Frequency Questionnaire Score**

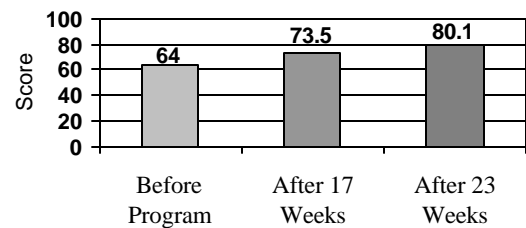


**Figure 3**

After 23 weeks, the patient's IBS Quality of Life Questionnaire<sup>††</sup> score increased from 64 to 80.1. (A higher score indicates a better quality of life, while a lower score indicates a poorer quality of life.)

This result suggests a notable improvement in the patient's general quality of life on the program.

**25% Increase in IBS Quality of Life Questionnaire Score**



**NOTE**

The information provided in this case study describes the results of one patient under the care of a licensed healthcare practitioner and may not be a typical response. UltraInflamX medical food is to be used under the supervision of a physician or other licensed healthcare practitioner.

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\*The Medical Symptoms Questionnaire (MSQ) is a clinical tool for the evaluation of general physical symptoms. Total scores above 75 are generally associated with substantial symptomatology and disability; scores below 30 generally indicate few or low intensity symptoms.

<sup>†</sup>The IBS Symptoms Frequency Questionnaire is a condition-specific questionnaire that ranges in scores from 0 to 78. Higher scores indicate more frequent or more bothersome symptoms; while lower scores indicate fewer symptoms or less bothersome symptoms: scores <20 mean infrequent or no symptoms; scores > 40 mean symptoms are often or always present.

<sup>††</sup>The IBS-QOL is a research-validated questionnaire that has been shown to reflect parameters of the disease. Since it is a psychometric measure of patient status, it is expected that higher scores on the IBS symptoms questionnaire will result in lower scores in the IBS-QOL questionnaire.

Case Study: Nutritional Support Using UltraInflamX<sup>®</sup> Medical Food in a Patient with Irritable Bowel Syndrome (IBS). Metagenics, Inc.; 031IBS304.