

Case #1470: A Case Study Evaluating the Effects of an Anti-Inflammatory Medical Food Featuring RIAA in a Patient with Psoriatic Arthritis

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PURPOSE

The purpose of this study was to assess the effectiveness of an anti-inflammatory medical food featuring reduced iso-alpha acids (RIAA, from hops) along with an anti-inflammatory dietary plan in a patient with psoriatic arthritis (PA).

PATIENT'S PRESENTATION AND HISTORY

A 28-year-old Caucasian female presented with a previous diagnosis of PA after a marked flare of symptoms 9 months prior to presentation. Onset of psoriasis began at age 13 with persistent plaques and flares of rashes ever since. She began to develop joint pain after the birth of her first child 5 years prior to presentation, with pain increasing after the birth of her second child 1 year before presentation.

Other current complaints included constipation and bladder dysfunction requiring self catheterization every time she urinated. The patient's medical history included four car accidents in the past 8 years. Thoracic myelitis had been diagnosed 7 years before and was associated with profound weakness in the lower extremities and required the use of a wheelchair. She was treated with prednisone and regained lower extremity strength and coordination, but had significant sequelae—including aforementioned bladder dysfunction. Temporomandibular joint (TMJ) disorder was diagnosed 10 years prior, with exacerbation 2 years prior to presentation. She had also suffered from asthma and cold-induced urticaria. Surgical history included two C-sections and multiple foot surgeries—a right bunionectomy and right Achilles tendon repair. She had a family history of bladder infections.

Patient's Objective Information

- HT: 61.25"; WT: 197.8 lb; BP: 121/81
- Prescriptive medication: etanercept, 50 mg sc once weekly for PA; piroxicam, 20 mg daily for pain and swelling
- Non-prescriptive medications: ibuprofen 400 mg as needed (up to 4,000 mg daily)
- Significant laboratory findings: depressed MCV and MCH; low normal hemoglobin; low ferritin at 8 ng/mL; low iron at 31 mcg/dL; elevated sedimentation rate at 32 mm/hr; positive anti-gliadin IgG antibody at 1.49; low normal vitamin D
- Physical exam: remarkable for 7 abnormal joints tender on pain and motion—with one swollen

ASSESSMENT AND PLAN

Initial assessment indicated PA, gluten sensitivity, hypovitaminosis D, and iron deficiency.

The patient was placed on the following protocol:

- Anti-inflammatory medical food featuring RIAA, increasing gradually to 2 scoops twice daily

RESULTS

2 Weeks After Starting the Program

The patient reported no significant changes in her symptoms of arthritis or psoriasis. However, she was no longer suffering from constipation and was having normal BMs once daily. She had a recent flare of her right second finger (due to trauma) that she noticed resolved much quicker than normal.

4 Weeks After Starting the Program

The patient reported feeling better and forgot to take her etanercept once daily because she felt so well. Her AIMS2 score showed a decrease in pain from moderate to mild and her BMs remained normal. Her MSQ scores for joints decreased from 12 to 6 and her total MSQ score decreased from 60 to 54. The joint exam had improved remarkably with only 2 symptomatic joints—left elbow and wrist (versus 7 at presentation). Weight gain to 204 lb.

The patient was instructed to:

- Continue anti-inflammatory medical food featuring RIAA
- Add EPA & DHA supplement (500 mg/60-100 mg), 2 softgels 3 times daily
- Add vitamin D and soy isoflavone combination supplement, 1 tablet daily with meals
- Begin elimination diet with special focus on removing gluten
- Begin 10 minutes of daily exercise, increasing 2 minutes daily each week

9 Weeks After Starting the Program

Patient reported remarkable improvement in her elbow. All other joints were asymptomatic with the exception of her right first metacarpal phalangeal joint. She also noted significant improvement in her general well-being and reported that her psoriasis had decreased by 50%. She noted that she was exercising nearly 2 hours daily due to misunderstanding exercise ramp-up, but was tolerating the level of physical exertion without

difficulty. Questionnaire scores mirrored these improvements.

The patient had a cumulative weight loss of 8 lb. Comprehensive digestive and stool analysis was remarkable for an elevation of eosinophil protein X and for depletion of beneficial bacteria (negative *Lactobacillus* and low *Bifidobacterium*). Women's Hormonal Health Assessment revealed a healthy 2:16a-hydroxyestrone ratio.

The patient was instructed to:

- Continue diet, exercise, and nutritional protocol
- Add combination *Lactobacillus acidophilus* and *Bifidobacterium lactis* probiotic (30 billion organisms each), 1 capsule daily on an empty stomach

15 Weeks After Starting the Program

The patient reported a recent kidney and urinary tract infection for which she was placed on IV antibiotics for 2 days. Due to the severity of the infection, she was off of her etanercept for 2.5 weeks and did not have a flare of pain or signs of inflammation. Prior to initiation of the nutrition-based anti-inflammatory program, she had frequently required early dosing of etanercept.

She had also discontinued all piroxicam and ibuprofen (formerly up to 20 tablets daily). She was happy to report a cumulative weight loss of 21 lb. She felt much healthier—no longer feeling toxic—and continued to have a daily BM. While she had experienced no significant changes in the area covered by her psoriasis, she felt her plaques had decreased in thickness and scaling (greater than 50% improvement overall). Her MSQ score was now 12, down from 60. The patient was advised to continue on nutritional, dietary, and exercise protocol as prescribed.

80% Decrease in MSQ Score

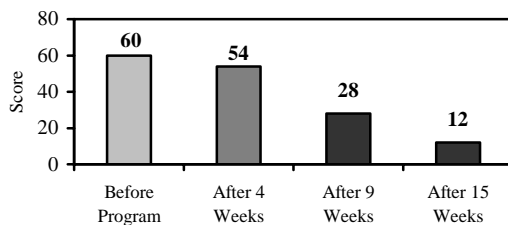


Figure 1. After 15 weeks, the patient's MSQ⁺ score decreased from 60 to 12. This result suggests a substantial improvement in general well-being.

91% Improvement in AIMS2: Symptoms Score

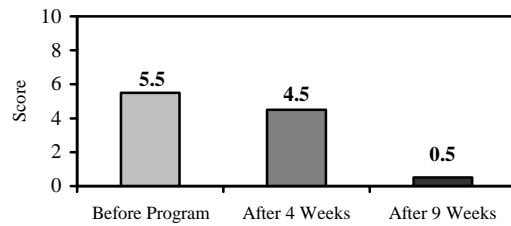


Figure 2. Within 9 weeks, the patient's AIMS2⁺⁺ symptoms score decreased from 5.5 to 0.5 (reference range: 0 to 10). This result suggests a noteworthy improvement in the patient's health status.

93% Improvement in AIMS2: Physical Score

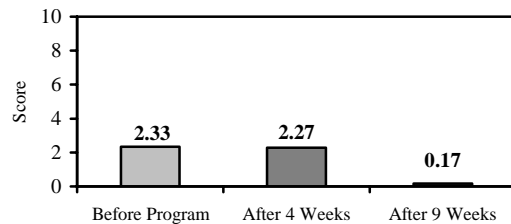


Figure 3. The patient's AIMS2⁺⁺ physical score decreased from 2.33 to 0.17 (reference range: 0 to 10) in 9 weeks. This result suggests a considerable improvement in the physical functioning.

100% Improvement in AIMS2: Role Score

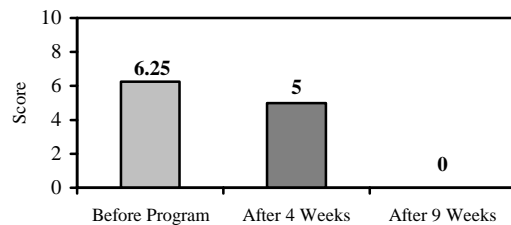


Figure 4. After 9 weeks, the patient's AIMS2⁺⁺ role score decreased from 6.25 to 0 (reference range: 0 to 10). This result suggests a remarkable reduction in role limitations due to physical functioning.

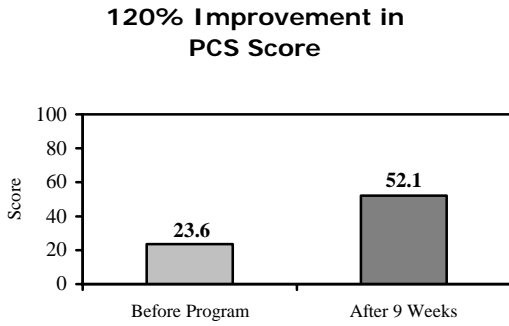


Figure 5. The patient’s score on the physical component summary portion of the Medical Outcomes Survey* increased from 23.6 to 52.1 (reference range: 50 or above = healthy function). This result suggests a significant improvement in the patient’s physical functioning.

SUMMARY

This case study demonstrates that a targeted nutritional support program that incorporates an anti-inflammatory medical food featuring RIAA, nutritional supplements, and an elimination diet improves symptoms and complements standard medical management of a patient with PA.

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. The anti-inflammatory medical food discussed in this study 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.

^{††}The AIMS2 questionnaire is a clinical tool for the evaluation of health status and outcomes of individuals with rheumatic diseases. A low score value indicates a high health status; while a high score value indicates poor health status.

* The Medical Outcomes Survey SF-36 is a well-validated general quality-of-life questionnaire that summarizes health outcome in two reliable reproducible scores: the Physical Component Summary (PCS) and the Mental Component Summary (MCS). Scores above 50 are generally associated with healthier individuals, whereas scores lower than 50 indicate compromised functioning.

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