

Case #1469: A Case Study Evaluating the Effects of an Anti-Inflammatory Medical Food Program and an RIAA/Vitamin D/Selenium/Zinc Dietary Supplement in a Patient with Rheumatoid Arthritis

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PURPOSE

The purpose of this study was to assess the effectiveness of an anti-inflammatory medical food and dietary supplement for immune function support—along an anti-inflammatory dietary plan—in a patient with RF-positive rheumatoid arthritis (RA).

PATIENT'S PRESENTATION AND HISTORY

A 59-year-old Caucasian female presented with a previous diagnosis of RA, for which she had been treated for the past 5 months. Her health started to decline in her mid-40s, beginning with carpal tunnel syndrome and then menopause. At age 50, she stopped smoking and became “deathly sick” with fevers, 20 lb weight gain in 2 months, aches all over, recurrent colds, and nodules on her fingers. She was later diagnosed with intestinal yeast and was treated with diet and nystatin. As she continued to feel unwell with generalized pain and a blood test was positive for inflammation, she was referred to a rheumatologist. Six months before presentation, she was placed on ibuprofen, prednisone, folic acid, methotrexate, and hydroxychloroquine. Four months later, ibuprofen and prednisone doses were decreased and leucovorin was added (rescue therapy for methotrexate effects).

Current complaints included: carpal tunnel with pain in wrists and fingers (but no swelling); pain in feet to ankle (improved with yoga and by using support when walking); stiffness; aching all over in waves 3-4 times/day (lasting 30-60 minutes each accompanied by fatigue); and osteoarthritis (OA) diagnosed by X-ray. She also complained of lifelong constipation with 2-5 days between BMs (normalized to 1-2 daily over the previous months).

The patient's medical history included hypothyroidism and intermittently abnormal pap smears and excessive menstrual bleeding managed by hysterectomy. Additional surgeries included tubal ligation, cholecystectomy, and stripping of varicose veins. She had a family history of arthritis, hypertension, cardiovascular disease, and hypothyroidism.

Patient's Objective Information

- HT: 63"; WT: 145.5 lb; BP: 130/76
- Prescriptive medication: methotrexate, 2.5 mg, 2 once weekly and hydroxychloroquine 200 mg, 1 bid for RA; leucovorin 5 mg once weekly; valacyclovir HCl 500 mg 1 qd for herpes; levothyroxine, 125 mg qam for thyroid

- Non-prescriptive medications/supplements: ibuprofen 200 mg twice daily; folic acid; biotin; magnesium citrate; multivitamin/mineral acidophilus; adrenal support supplement; Vitamin B₆; Vitamin B₁; HCl; undecenoic acid; calcium/folate/mineral supplement; Vitamin B₁₂ shots; natural hormonal replacement cream; wild yam cream for vaginal dryness
- Significant laboratory findings: elevated rheumatoid factor (RF) at 101 IU/mL; positive antinuclear antibody (ANA); elevated female hormones; *Candida albicans* in stool

PLAN AND RESULTS

The patient was instructed to begin:

- Anti-inflammatory medical food, increasing progressively from 1 to 2 scoops twice daily
- Combination supplement for immune support containing reduced iso-alpha acids (RIAA), vitamin D, zinc, and selenium, 1 tablet twice daily

2 Weeks After Starting the Program

The patient reported less stiffness and her MSQ score decreased 16 points. She complained of itchiness and red neck after her B₁₂ shot, so she was instructed to reduce vitamin B₁ and B₆ supplements to half their dose and discontinue magnesium citrate and multivitamin/mineral. The patient was then instructed to add:

- EPA & DHA supplement (600 mg/400 mg), 3 softgels daily
- *Bifidobacterium lactis*, 1 capsule daily

8 Weeks After Starting the Program

The patient gauged her improvement at 75%. Her fingers no longer ached, she had no pain when clenching her fists, and the pain in her feet to ankles was gone. Fatigue had also improved to a normal level and constipation was gone. The patient was instructed to begin an elimination diet.

12 Weeks After Starting the Program

The patient reported feeling much better overall. Celiac panel results showed weakly elevated transglutaminase IgG ab. She was instructed to continue the diet and nutritional protocol and to:

- Increase RIAA/Vitamin D/Selenium/Zinc supplement to 2 tablets twice daily

16 Weeks After Starting the Program

The patient reported 95% improvement in symptoms with no aches except at base of thumbs, due possibly to repetitive movements. She reported that her rheumatologist had just discontinued her

methotrexate. The patient was encouraged to continue on the elimination diet with food reintroduction, and the medical food/nutraceuticals as prescribed.

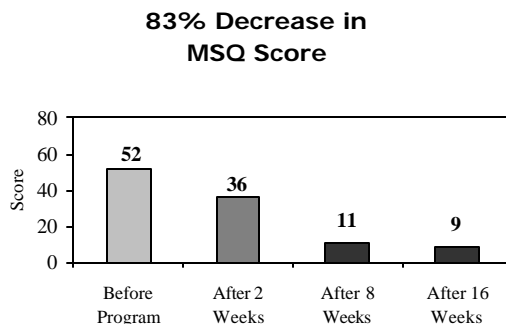


Figure 1. After 16 weeks, the patient's MSQ[†] score decreased from 52 to 9. This result suggests a substantial improvement in general well-being.

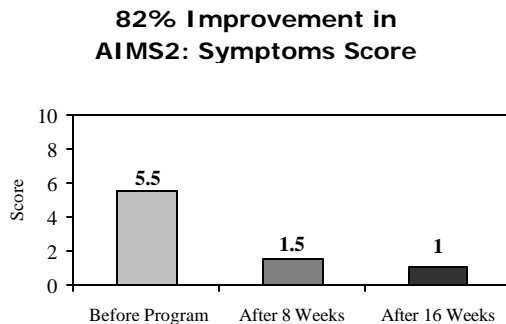


Figure 2. Within 16 weeks, the patient's AIMS2^{††} symptoms score decreased from 5.5 to 1 (reference range: 0 to 10). This result suggests a noteworthy improvement in the patient's health status.

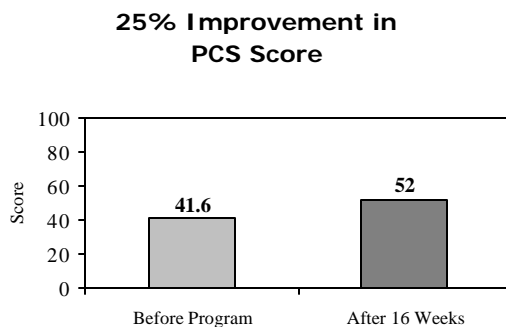


Figure 3. The patient's score on the physical component summary portion of the Medical Outcomes Survey* increased from 41.6 to 52 (reference range: 50 or above = healthy function). This result suggests an improvement in the patient's physical functioning.

16% Decrease in Homocysteine

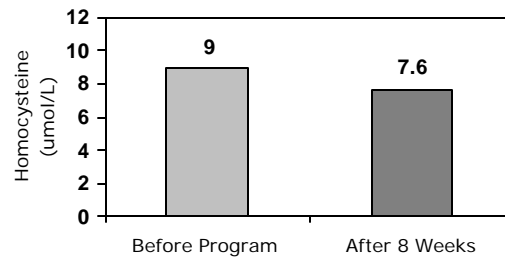


Figure 4. The patient's homocysteine level was reduced after 8 weeks to within a normal range (ref. range <9.0 umol/L). Elevated homocysteine levels have been associated with RA and cardiovascular disease (CVD). This result suggests a reduction in inflammation and risk for issues related to CVD.

SUMMARY

This case study demonstrates that a targeted nutritional support program that incorporates an anti-inflammatory medical food, dietary supplement for immune function support, and an elimination diet improves symptoms and complements standard medical management of a RF-positive RA patient.

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.

Financial support for this study was provided by Metagenics, Inc. This study was conducted at the Functional Medicine Research Center (FMRC), the clinical research arm of Metagenics, Inc. Robert H. Lerman, MD, is the Medical Director at the FMRC.

[†]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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