case reports
THE CARE GUIDELINES

CASE REPORT

To encourage other practitioners to consider submitting a case report for the E – News, we have restructured the format in line with recommendations from July 2014 and have left in the key guides – should you be interested just e mail info@nutri-linkltd.co. We will send you the word doc.

Case reports are profesional narratives that outline the diagnosis, treatment, and outcomes of the medical problems of one or more patients. Information from case reports can be shared for medical, scientific, or educational purposes. They provide a framework for early signals of effectiveness adverse events, and cost. Case reports and the systematically collected data from which they are written also provide feedback on clinical practice guidelines.

Case Report of a 39-year-old woman with musculo-skeletal aches and pains with tingling in her legs, feet & hands with a diagnosis of fibromyalgia that resolves with anti-viral programme.

Abstract. *Summarise the following information if relevant: (1) Rationale for this case report, (2) Presenting concerns (eg, chief complaints or symptoms, diagnoses), (3) Interventions (eg, diagnostic, preventive, prognostic, therapeutic exchange), (3) Outcomes, and (4) Main lesson(s) from this case report.*

This case explores a nutritional focused approach to the resolution of a variety of very uncomfortable physical symptoms and insomnia in a 39 year old woman who had been diagnosed with fibromyalgia 5 years previously.

The nutritional therapy targeted a reduced viral burden, along with a gluten free approach. The outcome was extremely positive.

Based on the diagnosis of fibromyalgia, the woman was not given anything pro-active to engage in by her GP, and only received some palliative physical therapy. She had sought private treatments for other help, although the outcomes were still very limited.

The pain involved in fibromyalgia is referred to as “central sensitization,” here nerves in the CNS become over-sensitised, responding to painful and non-painful stimulations in the same way sending stronger, constant pain impulses to the brain. In fibromyalgia pain, this is irreversible and perpetuated by altered emotional responses. Since the brain associates specific mood states with the senses, protective emotions such as fear and aversion may also become chronic in Fibromyalgia. The emotions related to pain and coping with fibromyalgia can then amplify the sensation as well, leading to increased pain and additional problems of anxiety and depression.

Fibromyalgia is considered a ‘syndrome,’ meaning many symptoms occur together. No single cause can be properly defined. However, it is believed there are a number of contributing factors, including:

- Inflammation: elevated inflammatory cytokine levels
- Disturbed sleep patterns: sleep apnoea, night-time muscle spasms, restless leg syndrome
- Infections: can trigger or aggravate fibromyalgia
- Rheumatic disease: the presence of a pre-existing rheumatic condition, such as rheumatoid arthritis or lupus, increases the likelihood of developing fibromyalgia
- Physical or emotional trauma: Post Traumatic Stress Disorder has been linked to fibromyalgia
- Genetics: fibromyalgia tends to run in families; however, no specific gene mutation has been identified

The primary symptom of fibromyalgia syndrome is pain. The pain is primarily in the muscles, and is described as chronic and widespread (the classification of widespread requires its presence on both sides of the body and above and below the waist).

The most common symptoms of fibromyalgia include:

- Incapacitating fatigue
- Decreased pain threshold
- Multiple (identifiable) tender points
- Sleep disturbances
- Memory problems and difficulty concentrating (“fibro fog”)
- Anxiety or depression
- GI symptoms

Symptoms vary from person to person, and external factors such as changes in weather, stress levels or physical activity can affect their severity.

Fibromyalgia is not progressive. While some symptoms may be attributed to overlapping, preexisting conditions such as depression or rheumatic diseases, fibromyalgia does not typically lead to other conditions or diseases. Despite this, living with fibromyalgia can cause physical and psychological strains that continually impact the lives of those affected by it. The struggle with chronic widespread pain, depression and lack of sleep can interfere with one’s ability to function at home or work, as well as in personal relationships. Often times, understanding and coping with such a debilitating disorder can be a complication in itself.

There is no cure for fibromyalgia and no single treatment capable of addressing all symptoms. Therapies and treatment plans have been established to help reduce pain, alleviate symptoms and improve quality of life. The most successful treatment plans include a combination of medications, exercise and behavioral counseling.

Many types of medication have been established as treatments for fibromyalgia symptoms. These include:

- Analgesics: often used to help ease pain and stiffness; non-steroidal anti-inflammatory drugs (NSAIDs) have been shown to be ineffective in treating fibromyalgia pain
- Anti-seizure drugs
- Antidepressants: shown to promote sleep and lessen the effects of depression associated with fibromyalgia

The inclusion of moderately intense aerobic exercise 2-3 times a week has been shown to reduce muscle pain. Counselling and cognitive behavioural therapies help people cope with pain and provide emotional support. Alternative treatments such as Tai Chi, acupuncture, massage therapy and osteopathic / chiropractic manipulations are also endorsed methods.

References

Mease P. Fibromyalgia syndrome: review of clinical presentation, pathogenesis, outcome measures, and treatment. J Rheumatology. 2005;75:6-21. View Abstract

Desmeules JA, Cedraschi C, Rapiti E, et al. Neurophysiologic evidence for a central sensitization in patients with fibromyalgia. Arth & Rheum. 2003; 48(5):1420-1429. View Abstract

Klimas. Cytokine and Other Immunologic Markers in Chronic Fatigue Syndrome and Their Relation to Neuropsychological Factors. Applied Neuropsychology. 2001; 8(1):51. View Abstract

Key Words. *Provide 3 to 8 key words that will help potential readers search for and find this case report.*

Fibromyalgia, pain, insomnia, virus, viral infection, inflammation, cytokines.

Introduction. *Briefly summarise the background and context of this case report.*

Mrs N.H. had been a teacher since she graduated and loved her job, even though it was challenging and tiring. For over 5 years, N.H. had begun to experience pains in different parts of her body; they moved around for no rhyme or reason. She had nerve pains and some numbness. She had experienced interrupted sleep for many years, but she had still managed to fall asleep again and wake up relatively refreshed. This changed when the pains started, meaning that she did not fall back to sleep swiftly and she awoke unrefreshed.

Putting this all down to some kind of 'flu-like condition which would go away of its own accord, she visited her GP after a month or so of this discomfort. The GP recommended pain killers and referred her to an osteopath, both of which had a minimal effect. However, the osteopath had experience with fibromyalgia (FM) and discussed this with N.H. who relayed the information to the GP who then diagnosed her with FM. After some months, morphine was required to successfully reduce the pain at a dose of 30 mg twice daily, the dose she was taking when we first met.

Her condition had ruled her life for the past 4 years in particular and she was fortunate to have an understanding Head Master, & supportive husband. She managed to go to work and do her job but as soon as she got home she collapsed and could not engage in any social life, or any exercise. Her husband, whilst always supportive, was naturally very frustrated by his wife's condition. He read a lot about FM and had taken her to a variety of practitioners including those practicing acupuncture, cranial osteopathy, homeopathy and more than one nutritional therapist (NT).

The recommendations from the other NTs had focused on the manifestation of the FM, namely the pain, and had targeted inflammation and central sensitization. However, these sensible approaches had not helped N.H. to feel better.

Presenting Concerns. *Describe the patient characteristics (eg, relevant demographics—age, gender, ethnicity, occupation) and their presenting concern(s) with relevant details of related past interventions.*

N.H. was a 39 year old teacher at a prep school, living with her husband in South East England. She is Caucasian with no ethnic genetic influences. She has no children. She & her husband had decided before they married that they did not want to have children. They did have a dog.

N.H. weighed 10 stone 12 lbs and is 5 foot 6 inches tall. She had gained about a stone over the past 4 years almost certainly due to inactivity. She expressed that she had been surprised that she had not gained more weight. She had definitely changed her body composition, however, having lost a considerable amount of muscle mass due to lack of use. She still had very painful trapezius muscles as if she had been doing some heavy lifting.

N.H.'s life has completely changed since she has had the fibromyalgia condition. Before that, she was very active, full of energy and life and also taught drama in addition to her main subjects of English and French.

The onset of the aches and pains happened quickly. One day N.H. was able to cycle for hours, walk and run with her dog on a daily basis, teach at school, stay on for an after-school drama practice, be involved in the netball game and come home to make dinner and have energy for lively conversation, and the next day, the pains inhibited much of this. The next month, she could only go to school and teach and come back, with no extra curricula activity and with no energy for engaging in conversation. Her sleep became worse to the extent that it affected her in a very different way. She no longer woke up feeling refreshed, but rather in a tired state with brain fog, with a lack of motivation. She experienced varying pains in her body and in the middle of her trapezius muscles and her triceps in particular. Most days she had a sore back. She had tingling down her legs and in her feet which were not painful, but an irritant. She sometimes found that her hands were numb in the morning for more than 5 minutes before it would wear off.

She sought clarity that she did not have multiple sclerosis and the brain scan (conducted about 4 years ago) was all clear and the neurologist was confident that she did not have a neurological pathology. Her condition did not progress and become worse so this was confirming of the absence of such a condition. However, N.H. had become reliant on morphine which made it all the more challenging for her to achieve brain clarity, making her teaching much more of an effort than previously. The pain, however, was worse so she took the morphine reluctantly.

Having met two other NTs, N.H. was familiar with the language of nutrition and knew about an alkaline forming diet, and an anti-inflammatory diet and what carbs were and what protein foods were. She ate pretty well, although her limited energy meant that her food was not always as fresh as it could be. For example, she ate pasta (GF or not) with tinned tomato bolognaise sauce because this took the least effort. She had taken a number of supplements in the past including CoEnzyme Q10, fish oils, B vitamins, turmeric, and magnesium malate. She had felt marginally more energy for a few weeks on them, but these benefits waned. She had persisted for months but then needed to stop because she could not afford them, especially if they were not helping.

She had not engaged in any specific exclusion diet for any length of time.

Two appointments with the acupuncturist had yielded no improvements. The osteopathic treatment did help every time, but was palliative and the benefits lasted a few days or more and she could not afford the time nor the fees to go more than twice a month at the most.

Early on in her condition, N.H. had visited the physiotherapist on a weekly basis which had similar marginal benefits. However, the referral process meant that she'd only been permitted 6 months' worth of treatments.

N.H. experienced pain every day which was dulled by the morphine, and she had tingling and numbness every other day on average. Her sleep was always interrupted and she was perpetually exhausted. Life had become very different and very challenging and it had really worn her down. Although it had never been voiced or even hinted at, she feared that her husband was becoming overwhelmed with the lack of a relationship and lack of the life they had once had together, which weighed on N.H.'s mind a lot.

For this reason, she continued to seek for some kind of answer to her condition, more so than for herself, she admitted.

Clinical Findings. *Describe: (1) the medical, family, and psychosocial history including lifestyle and genetic information; (2) pertinent co-morbidities and relevant interventions (eg, self-care, other therapies); and (3) the physical examination (PE) focused on the pertinent findings including results from testing.*

N.H.'s health background was clear of ailments, the need for medications and accidents and injuries. Her parents were in their late sixties and early seventies and were doing well, leading a much busier and active life than she was, currently. Her older brother was quite well, although he did not take much exercise and had smoked when he was younger. However, he was ostensibly well, and had two young children, whom she loved.

Now, however, she could not play with her nephew and niece as she could before because any small knock elicited sharp pain. In this way, she could also not play with her beloved dog as she had done before, and she needed to take care when the dog tugged at the lead, since this could lead to 2 or 3 minutes of intense pain.

There is no family member who has ever had FM or any condition like it. There is no specific theme of illness which affects her family.

The only health issue is the relatively chronic, poor sleep pattern that N.H. had experienced for over ten years prior to the onset of the FM condition. For some reason, she woke in the night at least once, but went back to sleep and woke up feeling good. She had learned a short time after the sleep disturbances started that the best thing to do was NOT to worry about it, but to relax and this meant she returned to sleep quiet quickly. She told me that the waking at night may have coincided with her starting her current teaching role even though she did not feel any specific stress about it.

Timeline. *Create a timeline that includes specific dates and times (table, figure, or graphic).*

N.H. was born in 1976, a year when a heatwave bathed the UK and there were water restrictions.

She enjoyed a healthy childhood and played sports and enjoyed school, rarely missing a day due to illness of any kind.

She enjoyed activities with others, less so on her own. She achieved slightly above average academically, an enjoyed sports. She had always been amiable and easy going. She was not a high achiever, but was popular and had a positive outlook on life.

She knew she had wanted to be a teacher of young children from when she was a young teen. She did a teacher training after a degree in English and French.

It was in 1997 that N.H. graduated and in 1998 she completed her teacher training year, and in 1999 that she started her first teaching role.

In 2005 she started her current teaching role in a prep school, and soon after this her sleep problems started.

In 2008 she met her now husband and in 2010 the signs and symptoms of what was later diagnosed as fibromyalgia started. When we explored the events that led up to this, there was nothing that could explain the sudden onset, no illness or flu or viral infection, no big stress, no deadline of work, no pressure in her job or on a personal level.

She had taken pain killers in 2010 and 6 months later, due to need, morphine had been recommended. She had found that a certain dose made the difference, namely 30 mg twice daily, but a lower dose did not. She was very aware of the addictive nature of morphine but could find no other way of operating and maintaining her job.

In each year since the condition manifested and she had visited her GP, (i.e. in 2010-2015) she had visited various practitioners to see if they could help her. I was the 3rd NT that she had visited. She had met with the two other NTs on at least 2 occasions each and had closely followed their recommendations. I did my best to learn from the lack of positive outcomes from this previous sound advice, and it was this lack of progress from recommendations that have been of benefit to other FM sufferers that helped to determine the approach used in this case.

Diagnostic Focus and Assessment. *Provide an assessment of the (1) diagnostic methods (eg, PE, laboratory testing, imaging, questionnaires, referral); (2) diagnostic challenges (eg, financial, patient availability, cultural); (3) diagnostic reasoning including other diagnoses considered, and (4) prognostic characteristics (eg, staging) where applicable*.

In my clinical experience, many individuals I have worked with who are diagnosed with FM have a viral burden involved in their condition. It is difficult, perhaps impossible, to tell whether this is the cause or a contributory factor or an aggravating factor or a trigger. Nonetheless, when the blood tests return with a high level or simply an above the reference range, and then an anti-viral and immune supportive programme is instigated, then the patients invariably fare well.

There was a single test that I recommended to N.H. at the first appointment. This was a blood test to assess the antibodies to Epstein Barr Virus, Cytomegalovirus, HSV-1, HSV-2 & HHV-6, and the Elispot LTT (Lymphocyte Transformation Test) to EBV & CMV. We agreed to await the results before implementing any nutritional changes or therapeutic supplements.

The results revealed an elevated level of a number of analytes. There was a marginally elevated level of IgG antibodies to EBV and CMV and HSV-1, and there was a markedly elevated level in the LTT tests to EBV and CMV, and there was a moderately above the range level to HHV-6. The positive LTT reflects an actual humoral immune activity vs the virus in question.

Antibody or Elispot (LTT) analyte	Result
EBV ABs IgG	Positive +
EBV LTT	Positive +++
CMV ABs IgG	Positive +
CMV LTT	Positive +++
HSV-1	Positive +
HSV-2	Negative
HHV-6 ABs	Positive ++

I made the decision to target N.H.'s viral burden and to support her immune system accordingly.

Therapeutic Focus and Assessment. *Describe: (1) the type(s) of intervention (eg, preventive, pharmacologic, surgical, lifestyle, self-care) and (2) the administration and intensity of the intervention (eg, dosage, strength, duration, frequency).*

The intervention recommended to N.H. came in the form of some minor dietary changes and specific therapeutic supplements designed to inhibit viral expansion and to support immune function.

N.H.'s diet needed some improvement, in terms of regularity of eating, and composition of each and every meal. The end result was an agreement to consume a very healthy wholesome diet that provided lean animal proteins two or three times a day, plenty of vegetables, minimal sugars, complex carbs, good sources of fibre and plenty of water.

I also recommended a gluten-free diet, 100% strictly for the first period of time. If there were improvements in any way, then we agreed that this would be maintained.

Here are the supplements that were recommended at first.

First Supplement Programme	Dose
Immuno-Gland Plex (ARG)	2 with dinner
S. Boulardii (ARG)	1 with lunch, 1 at bedtime
Humic Acid Cell Membrane Active (ARG)	1 with breakfast & 1 with dinner
ProLive (ARG)	1 with breakfast & 1 with dinner
KappArest (BRC)	2 with each meal

We met 6 weeks later, when N.H. told me how she had been getting on. With her husband's help, she had abided by the recommendations religiously. She managed to change her diet quite significantly, and she took all of the supplements. She remained determined to conquer her condition, and I was impressed with her adherence and positive attitude about embracing the changes, especially given how tired she was.

Over the first 6 week period, N.H. experienced a few flare ups of her condition, and she needed to increase the morphine so that she could function. This was disappointing, but she remained on course, and did not complain once – she simply described what was happening.

Her sleep remained disrupted and did not change. Her energy was a little better in the mornings, but she still fell asleep on the sofa early in the evening, especially during term time. Her aches, pains, tingles and numbness all remained very much as they were before, but she appreciated that it would take some time.

However, at this first follow up, I recognised that her long history of pain-killing drugs, namely morphine, that is may take longer than usual to see some positive outcomes. N.H. had prepared herself for reducing the morphine but had yet to do so.

I revised the programme by omitting the olive lead extract, ProLive, in order not to overwhelm her capacity to detoxify the viral debris, but I increased the anti-inflammatory KappArest (BRC) to support the ability to reduce the morphine.

Second Supplement Programme	Dose
Immuno-Gland Plex (ARG)	2 with dinner
S. Boulardii (ARG)	1 with lunch, 1 at bedtime
Humic Acid Cell Membrane Active (ARG)	1 with breakfast & 1 with dinner
KappArest (BRC)	3 with each meal

We met 5 weeks later for the third appointment and she had some more interesting news to share. She had not really noticed any change at all until 3 weeks had passed in the second phase of her programme. Then she had a very bad day when the pain was worse and she needed more morphine. However, the day after that she felt as good as she had done in at least a year or more. The next day was also a good day in terms of pain levels: she had very few pains. The morphine never completely eliminated the pain which was why she was still able to discern a good day from a bad day. So, N.H. had 3 good days in a row which was very rare, and then the pains resumed. A week after that she had another flare up and it was followed by two very good days. She really felt that something was shifting within her. When we met 5 weeks after the previous appointment she had had two episodes of improvement.

On the second day of having noticeably less pain, N.H. took the brave step of reducing the morphine from 30 mg twice daily to 20 mg twice daily. She persisted with the reduced dose since that time, and was able to manage the discomfort, which she was surprised at. Both she and her husband wondered if it was a placebo effect, but either way were very happy to implement this change.

I decided to have N.H. finish the S. Boulardii probiotic yeast, and to switch immune support from the glandular support of Immuno-Gland Plex to a product that provides 1,3-Beta Glucans from mushrooms, in tincture form. I also re-introduced the ProLive Olive leaf extract for direct anti-viral activity.

Third Supplement Programme	Dose
Mycocyclin (ARG) (tincture of 6 mushroom extracts)	1 dropperful at dinner
Humic Acid Cell Membrane Active (ARG)	1 with breakfast & 1 with dinner
ProLive (ARG)	1 with breakfast & 1 with dinner
KappArest (BRC)	3 with each meal

We then met 8 weeks after the previous appointment, for the fourth time. N.H. had experienced a number of other mini flare ups followed by a period of time when she was able to reduce the morphine further. However, the overall aches and pains had decreased and she had been able to continue wither reduction of the morphine. In itself this was evidence enough to her and her husband that she was on the right track. She told me that even on what she called a bad day she did not have to increase the morphine like she had needed to in the past. She was now taking 10 mg in the morning on one day, 15 mg the next, and 15 mg in the evening every evening. This was less than half of her original dose.

The tingles, the pains, the aches, the weakness were all diminishing - she was sure of it. Her sleep had improved a little, but not as much as her physical symptoms.

She had avoided gluten 100%. I did not regret emphasising the importance of its exclusion when we first met, even though this was designed to ensure that the first phase of the programme was a controlled one. I did not know how much this was contributing to her improvements if at all, but now neither of us wanted to find out if it did contribute to her overall condition because she was making progress, over time, for the first time in years.

I asked N.H. to stop the ProLive olive leaf extract again for this next period of time so as to help prevent a build up of inflammatory signals or viral debris which may be contributing to an inflammatory cytokine level which could directly contribute to interrupted sleep. N.H. was loath to reduce or stop the KappArest product, lest she needed more morphine as a result.

Fourth Supplement Programme	Dose
Mycocyclin (ARG) (tincture of 6 mushroom extracts)	1 dropperful at dinner
Humic Acid Cell Membrane Active (ARG)	1 with breakfast & 1 with dinner
KappArest (BRC)	3 with each meal

We met two months after the fourth appointment, for the fifth time. N.H. reported that she had a 40-50% reduction in the pains and with less than 50% of the morphine.

By now, and after much thought and conversation with her husband combined with those with myself during our appointments, she was also convinced that the she did have a virus. She had the energy and ability to read about the connection with viruses and antibody production as a cause of arthritic and muscular pains and fibromyalgia. The pattern of flare ups followed by a few days of semi-remission was what convinced her that the programme was the appropriate one for her.

N.H. felt better within herself and remained motivated day by day to do what it took to persevere and overcome her condition as well as any need for any medication. She had now reduced her morphine to 10 mg in the morning and evening, and had even not taken any on the occasional morning, but the pains returned and she needed to take some at lunchtime on those days.

I reduced her dose of the mushroom extract to Monday, Wednesday and Friday, and reduced the frequency of the KappArest to twice daily, but both with options to revert to the previous doses. We agreed to meet in another 8 weeks' time.

Fifth Supplement Programme	Dose
Mycocyclin (ARG) (tincture of 6 mushroom extracts)	1 dropperful at dinner, 3 nights a week
Humic Acid Cell Membrane Active (ARG)	1 with breakfast & 1 with dinner
KappArest (BRC)	3 with breakfast & dinner

N.H. reported a continued steady reduction in her pains, aches, and her numbness and tingles were hardly troubling her at all. Her sleep was improved but still only at 50% improvement after over 8 months. The pains and discomfort she had experienced, however, was at 20% of what is had been, but she acknowledged she was still taking some morphine. The morphine was proving more difficult to reduce as the doses became smaller which was a source of emotional and mental stress, since she had expected to be off the drug by now, given the early improvements she had experienced. However, an alternate day rotational dosing worked best for her. She took 5 mg with breakfast, and 5mg or 10 mg in the evening time on alternate days. She knew it would be a question of time.

Her Head Master was really pleased to see his valued member of staff make such evident improvements, albeit that it had taken many months, and he did not understand anything about FM or the programme she had been following. Her husband enjoyed the company of his wife since she was able to engage in social events and be awake in the evenings.

It felt like there was one more hurdle to get over, and this is when I felt it was best to introduce supplements that I have found effective in other sufferers of FM, specifically magnesium malate and an antioxidant called Ecklonia Cava Extract (ECE) which is 10-100 times as potent as Green Tea Extract (EGCG). I recommended that she stop the mushroom extract.

We established a 6 week phase for this programme and we met again after that.

Sixth Supplement Programme	Dose
Humic Acid Cell Membrane Active (ARG)	1 with breakfast & 1 with dinner
KappArest (BRC)	3 with breakfast & dinner
FibroBoost (ARG)	2 caps 30 mins before breakfast & 30 mins before lunch
Magnesium Malate Forte (ARG)	2 with breakfast & dinner

N.H. and I met for the seventh time. She had lost some weight and begun to exercise. She still found it hard to engage in cardiovascular type exercise but she could do resistance work. About a week after she stated the two new supplements, she felt a marked improvement in her energy and there was a step improvement in the reduction of her pains. Her sleep also improved gradually over this 6 week period. She had further reduced the morphine and now took 5 mg in the evening, and sometimes 5 mg in the morning, and she waited for the longest time before taking any in the day. She had needed a pill cutter from the local pharmacist to enable the reduced dosing.

Essentially, 10 months after commencing her programme, N.H. was over 80% better in terms of physical pains, 100% better in terms of nerve tingling and numbness and 65% better in terms of sleep pattern and refreshment.

We agreed to be in communication in the coming weeks, and that it would be best to meet again when she had weaned herself off the morphine.

In fact, some 6 weeks after that, closing in on the anniversary of the first appointment, N.H. emailed me to say that she had been off the morphine for a week, and she told me that I should feel glad not to have received any communication from her in the previous days because it would not have been very pretty! She had experienced anxiety in the immediate time off the opioid analgesic. She had been prepared for this, and had the support she needed, but it was not pleasant. Then she had some nerve twitching, and then she had not slept at all for two nights, and needed to take a day off work. She had felt nauseous which was awful, but nothing persuaded her to return to the drug. For 3 days she felt pretty awful (nausea-wise) but found the distraction of needing to be in teaching mode was actually a help. She felt more anxious than normal, had some daily twitching and had had loose bowels on and off. She felt she was over the worst of it, hence her email to me. At no time did the FM pains return, however.

She made a special note to let me know that her foggy brain was completely resolved, so that every time she was required to use her brain in teaching or new projects or challenges it was so much easier than before. The combined resolution of the pains and the cessation of morphine were not doubt responsible for this, we agreed.

She asked me about the supplements and I gave her direction to reduce and then stop the Humic Acid & KappArest but to maintain the FibroBoost and Magnesium Malate for a further 6 weeks, and then to reduce those gradually.

Seventh Supplement Programme	Dose
FibroBoost (ARG)	2 caps 30 mins before breakfast & 30 mins before lunch for 6 weeks, then reduce
Magnesium Malate Forte (ARG)	2 with breakfast & dinner for 6 weeks then reduce

She promised to contact me if there were any health issues or challenges. As I write this Case Report, I have received no further communication from N.H.

Almost a year of targeted nutritional therapy and no small commitment from N.H. and her husband, have borne the desired fruit. N.H. has succeeded in conquering her FM condition and in coming off the addictive analgesic. She has returned to her full life, step by step, and escaped the trap that her pain and the drug had put her in. The viral burden appears to be strongly implicated in her condition but it is not known if it was the initiator, aggravator and perpetuator or simply the latter.

The small but significant improvements in N.H. provided the feedback for both practitioner and patient that the therapeutic target was the correct one.

Not every patient with FM has a viral burden that plays such a significant role in the condition, because I have witnessed the ECE antioxidant have tremendous benefit on its own, without any anti-viral intervention. However, when remedies such as this (e.g. magnesium, CoQ10, antioxidants, mitochondrial support) do not have much effect, it may be of value to consider a viral antibody and LTT screen.

Supplement Information

FibroBoost (ARG)
A clinically trialled natural sea-vegetable derived antioxidant that is 40% fat soluble and remains active in the body for 12 hours, some 24 times longer than most water soluble antioxidants. It has been studied and found to improve fibromyalgic pains and improve sleep and energy, (and sex function too).

Humic Acid Cell Membrane Active (ARG)
Humic acid has antioxidant activity, helps neutralise and remove toxins, and supports a general sense of well-being. Most importantly, it may also be effective in supporting the body's ability to address viruses by acting as a binding agent to viral components, preventing the virus from migrating from one cell to the next. Do also view these articles on our website: 'Great Moments in Humic History' & 'Earth's Gift: Ancient Soil Deposits Yield Potent Antiviral Potential'.

Immuno-Gland Plex (ARG)
Provides four glandular extracts in equal measure: adrenal, pancreas, thymus and spleen extracts. Designed to support vital glands that play a role in immune function.

KappArest (BRC)
Provides a blend of proven anti-inflammatory plant extracts and antioxidants with BioPerine which enhances the efficacy of these ingredients. The formula was developed to inhibit NF-kB (nuclear transcription factor kappa B) which influences an inflammatory cascade and many other pro-inflammatory cytokines.

Magnesium Malate Forte (ARG)
A useful source of magnesium (124 mg) with 50 mg of malic acid, which has been shown clinically to help reduce FM symptoms, and provides a substrate for mitochondrial ATP.

Mycocylin (ARG)
Provides extracts of six mushrooms used in Chinese medicine for centuries to support the healthy functioning immune system. The product provides beta-1,3-glucan, which supports a healthy white blood cell activity.

ProLive with Antioxidants (ARG)
Olive leaf possesses a variety of properties which potentially support balanced intestinal microbiology & circulation, as well as anti-viral activity.

S. Boulardii (ARG)
The well-known and well-studied 'probiotic' yeast that supports SIgA levels, and can also reduce inflammation, and supports gut lining integrity.

Discussion. *Please describe (1) the strengths and limitations of this case report including case management, (2) the literature relevant to this case report (the scientific and clinical context), (3) the rationale for your conclusions (eg, potential causal links and generalizability), and (4) the main findings of this case report: What are the take-away messages?*

Strengths and limitations of this case report including case management
As with all patients / clients, a careful and detailed case history provides the foundation for appropriate questioning and decision making. The fact that other sounds nutritional recommendations had not had an impact on N.H. meant I was more open to the potential contributory causes of her FM condition.

It may sound obvious, but the regular appointments we had over the 10 months were very important for N.H. and her husband and provided an opportunity to explain what I believed was occurring within the body which helped to maintain compliance. The improvements in her symptoms also supported compliance, but the two things together helped to cement the decision to follow everything to the letter (i.e. eat really well, not touch gluten and take the supplements daily).

The literature relevant to this case report
There is evidence in the literature linking hepatitis virus with FM, but less so EBV and FM, although if FM has similar roots as CFS, then the connections make for a stronger case. There is even less research on HHV-6 and FM. Clinical experience informed me considerably more than a literature review would have done in this case.

The rationale for your conclusions
The suspicion about a viral connection in this case was all the more likely given the lack of improvements from other nutritional intervention, and the failure of other therapies to impact N.H.'s daily pains.

The main findings of this case report: What are the take-away messages?
As usual with these Case Reports, it is the careful case history taking, analysis of the time line, and placing this information like a transparency on top of clinical experience which produces the most effective thought process. The test results made it straightforward to know what to focus on.

Patient Perspective. The patient should share his or her experience or perspective of the care in a narrative that accompanies the case report whenever appropriate.

N.H. had felt so poorly in terms of pain at the time we first met, that she had reached a state where she felt she would never get better. She had resigned herself to living her life in that state. To find a resolution to her condition has been completely life-changing and yet on the other hand, she is now beginning to forget just how much discomfort she was in. N.H. is now upbeat and positive again and extremely grateful to have found a way to restore her good health.

Informed Consent. *Did the patient give the author of this case report informed consent? Provide if requested.*

The patient is not aware her case history is being used, and all identifiable data has been removed. N.H. are not her real initials.

Case Report Submission Requirements for Authors

1. Competing interests. *Are there any competing interests?*

None Known

2. Ethics Approval. *Did an ethics committee or Institutional Review Board give approval? If yes, please provide if requested.*

This case was not presented to an ethics committee.

3. De-Identification. *Has all patient related data been de-identified?*

All patient data has been re-identified

4. Author. *Name of Author and practice*

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