

#### **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 <a href="mailto:info@nutri-linkltd.co">info@nutri-linkltd.co</a>. We will send you the word doc.

Case reports are professional 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 55 year old lady who developed osteoarthritis and resolves the symptoms with NT

**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 nutritionally focused approach to the resolution of recently diagnosed osteoarthritis (OA) in a 55 year old lady when she engaged in an 'anti-inflammatory' nutritional programme.

OA also known as degenerative arthritis or degenerative joint disease or osteoarthrosis, is a group of mechanical abnormalities involving degradation of joints, including articular cartilage and subchondral bone.

Symptoms may include joint pain, tenderness, stiffness, locking, and sometimes an effusion. OA commonly affects the hands, feet, spine, and the large weight bearing joints, such as the hips and knees, although in theory, any joint in the body can be affected. As OA progresses, the affected joints appear larger, are stiff and painful, and usually feel better with gentle use but worse with excessive or prolonged use, thus distinguishing it from rheumatoid arthritis.

A variety of causes - hereditary, developmental, metabolic, and mechanical deficits - may initiate processes leading to loss of cartilage. When bone surfaces become less well protected by cartilage, bone may be exposed and damaged. As a result of decreased movement secondary to pain, regional muscles may atrophy, and ligaments may become more lax.

Changes in sex hormone levels may play a role in the development of OA as it is more prevalent among post-menopausal women than among men of the same age.

Treatment generally involves a combination of exercise, lifestyle modification, and analgesics.

OA is reported to affect approximately 8 million people in the UK.

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

Osteoarthritis, arthritis, pain, swelling, inflammation, polymyalgia rheumatica, fingers, hands.



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

Mrs. C.B. is a very health conscious woman in her mid fifties, although she could pass for 40. She is slim, keeps fit, and eats a very nourishing diet, and keeps well hydrated, but does not drink alcohol, coffee or caffeinated drinks.

C.B. presented with a sudden onset of pain and swelling at the end of summer of 2014. It appeared to come 'out of the blue'. Her thumb joints hurt, her fingers became swollen so that she could not wear her rings, her elbows and shoulders hurt but her knees were fine, as were her hips. Her GP first thought it might be polymyalgia rheumatica but after blood tests and examination by a rheumatologist, the diagnosis of osteoarthritis was made. She was prescribed short term steroids and NSAIDs, and was told that she would need to be on these pain killers long term and would soon need an H<sub>2</sub> acid blocker to protect her stomach lining from the effects of these drugs.

She declined the drugs and sought my advice promptly. C.B. already ate really well, was gluten and dairy free and consumed wholesome foods rich in plant matter and lean proteins. In this way, my therapeutic intervention came in the form of concentrated nutrients in supplement form.

After two weeks of consuming the supplements her symptoms disappeared, although the swelling in her fingers remained. She persisted for a few months and then over Christmas she ran out of the supplements. After two weeks with no supplements however, she felt the pains returning and so she re-started her most recent programme and within days the symptoms subsided again.

The onset of what has been termed OA occurred 3 months after she had stopped HRT which she had been taking for 4 years. The HRT had definitely helped C.B. to feel better, she had told me at each appointment that we had had over that time. In a routine mammography in April 2014, a ductal carcinoma in situ (DCIS) was identified, which was a shock to her. A DCIS is a pre-cancerous or non-invasive cancerous lesion of the breast, and classified as Stage 0. It rarely produces symptoms or breast lumps. C.B. was therefore advised to wean herself swiftly off the HRT, which she did.

The onset of the OA appears to be related to the cessation of HRT, in spite of a very good diet and a healthy lifestyle. There was no family history of any relevance.

**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.

Mrs C.B. has been following my nutritional advice for ten years. She is a slim, 55 year old married lady with two grown children, living in London who has devoted much energy, time and resources to ensuring that she can be as well as possible and age as gracefully as possible. We had met approximately 20 times over the previous decade and managed to resolve minor health issues with appropriate nutritional changes. Her whole family had sought my advice for one reason or another and all had responded well on their individual recommendations.

C.B. is Caucasian and lives in central London. She does some voluntary work on two days a week but otherwise has no need to work. She has a very busy social life and is a high energy, positive woman. The one thing that has been present over the decade that I have known her is her level of stress. She is very sensitive and appears to feel stresses more than others might.



**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.

C.B. has no history of needing medical attention during the whole of her life until April and May 2014. Her parents are still alive and well, aged 88 and 93. She has two sisters, close in age, who are both very well. They appear to be less stress sensitive, C.B. told me. Her two children are in their early 20's and they are just fine too, although her daughter has had some anxiety attacks in the past. There is no history of arthritic conditions. Of her entire family, C.B. pays more attention to what she eats, what exercise she does and looks considerably younger than her two sisters as a result (she told me).

C.B. practices yoga and Pilates every week and does resistance exercise. She also walks with friends at least twice a week.

When we met at the beginning of September 2014, C.B. showed me her hands the moment that she walked into the clinic room. Clearly, her 4<sup>th</sup> finger on each hand were swollen and slightly mis-shapen. She could not put her rings on her fingers. Her wrists hurt, her elbows hurt, her shoulders hurt and she reported having weak arms and hand strength. Her face looked a little swollen too, which she acknowledged as being puffier. "Please don't let me need the drug they want me to take!" she said.

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

In April 2014, C.B. was diagnosed with a D.C.I.S. and had a lumpectomy in May 2014. All went well, and as biopsy results showed that the tissue was "not very oestrogen sensitive" (her words), she was not told that she must take tamoxifen, but rather this would be considered when she was reviewed. She was told to wean off the HRT in April and by the time of the operation she had stopped taking it. The presence of the D.C.I.S. was a definite shock to C.B. who had been so healthy for so many years, and she could not understand it. She continued to eat as well as ever, and had sought my advice on how best to balance her hormones so as to minimise the risk of oestrogen related cancers.

In late August, C.B. woke up one morning and her hands hurt, and her fingers were swollen. When it persisted for a few days she visited her Dr, and within these short days, her shoulders and elbows were also painful. Her knees and hips did not trouble her and have not at any time since. The aches and pains on non-weight bearing joints, especially her shoulders, prompted her GP to wonder if the condition was polymyalgia rheumatica. She was referred to a rheumatologist and saw him within days (she had private medical insurance). Blood tests appeared to rule out polymyalgia rheumatica and rheumatoid arthritis and so the diagnosis was osteoarthritis. C.B. was not told much other than this was a chronic condition, likely life-long and it would affect her life and she would most likely need to take medications from now on. For her, it was like being told "to get her affairs into order". She was shocked by the process and did not manage to ask any meaningful questions as to why this was something she should have now. She had been feeling very well, as usual. Then suddenly this.

She booked an appointment to see me within the week, which was early September 2014.

**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.



#### September 2014

C.B. confirmed to me when she arrived in the clinic room that the diagnosis was OA, but she told me that a week ago it had been mooted that she had polymyalgia rheumatica. She showed me a copy of her blood test results, including an array of auto-antibodies which were all clear, including ANA (anti-nuclear antibodies). RA factor was negative. CRP was normal, but ESR was elevated. The haematology was also all normal, with normal ferritin.

She showed me the prescription for prednisolone and naproxen (NSAID), and asked me to help her not to need them, but she was tempted because she was in such discomfort – i.e. her fingers, wrists and thumbs hurt sufficiently.

Her hands were the only part of her body where you could tell something was swollen or out of shape. She had her rings in her hand-bag and was in tears as she exclaimed how much she wanted to be able to wear them again.

I had met her after the lumpectomy some months before and I could easily see the difference in her hands and her swollen face. Her shoulders were red she told me and so were her elbows.

The time-line clearly showed that the cessation of the HRT was likely to be the single significant trigger and or mechanism for the OA, albeit a delayed response, probably as the levels of hormones declined over those months despite her very sound diet. We agreed that we could not have predicted this happening, but then again we could not have predicted the D.C.I.S. either – C.B. consumed cruciferous vegetables every day, ate a plant rich diet, ate lean sources of protein, avoided dairy products and gluten and alcohol, and had never smoked, and took regular exercise.

We did discuss the importance of adrenal hormones in controlling inflammation and how long term stress can reduce their output resulting in a more distinct change of health and menopausal symptoms when the change in female hormones occurred. I recommended the adrenal stress profile saliva test to her, and she said that she would do this when she could but right now she just wanted to reduce the pain and the swelling which would mean that her GP and husband would stop insisting that she took the medications.

As it happens, at the time of writing this case report, C.B. has still not done the ASI test to give us the hard evidence of her cortisol output, but this is something I am pressing her to do. As far as I can tell, in spite of C.B. always engaging wholeheartedly in the nutritional recommendations that I have recommended to her over the years, she believes that the test may reveal something 'wrong' with her and she simply does not want to know that right now.

**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).

#### September 2014

I recommended that C.B. continue to eat the wholesome diet, with emphasis on anti-inflammatory spices such as turmeric and ginger, and cold water fish rather than poultry. I suggested that she photograph her typical meals for me so that I could verify what she was eating; she was too stressed to be able to write it down.



The therapeutic recommendations consisted of nutritional supplements that offer an anti-inflammatory effect. This programme was to replace the other supplements which she took every day. She wanted to take the most robust programme to achieve the results possible, and we could then consider reducing the doses.

First Anti-Inflammatory Supplement Programme – September 2014	
Bio-D-Mulsion Forte (BRC) (emulsified vitamin D3)	4 drops with dinner for 2 weeks, then reduce to 2 drops with dinner (8,000 iu then 4,000 iu)
ALA-Release (ARG) (alpha lipoic acid supports glutathione levels & helps overall antioxidant status)	1 with each meal
Immuno-gG (BRC) (colostrum)	4 with breakfast & 4 with dinner
Arthred Collagen Powder (ARG)	1 scoop before 2 meals in a little water
EFA-Sirt Supreme (BRC) (n-3 & n-6 fatty acids)	2 with breakfast & 2 with dinner
KappArest (BRC)	3 with each meal
ProBerry Amla (ARG)	1 scoop at 6-7 pm in water
Zen (ARG) (I-theanine with GABA)	1 caps on empty stomach mid morning and mid afternoon and as needed

C.B. took all of the supplements 100% of the time. She called me on and off over the next two weeks to check that she was doing the right thing, and I had told her that if the pain was too much that she may need to resort to a short term use of the medications, and that sometimes supplements can take a little longer than pharmaceuticals to bring about a reduction inflammation. After 14 days, C.B. called me to say that her pain was much less and her fingers were less swollen and that she could wear her rings again. She was very happy to experience this. We agreed to meet 4 weeks after that.

#### October 2014

In October 2014, C.B. again held out out-stretched hands when she came in the clinic room to show me her fingers, with rings on, and how much less swollen they were, although one of her 4<sup>th</sup> fingers was slightly crooked. She had been out of pain for the entire time, without shoulder pain, elbow pain or finger pain. She did have the odd thumb joint pain, however, but this was rare.

C.B. had not had the need to visit her GP and had not needed the medications. She showed me the photos of meals and food she had been eating and we discussed the pros of what she was doing and why, so she understood better.

C.B. was evidently in less pain, had less inflammation, looked better in her face as well but also was much less anxious than she had been before. The fact that she had not needed drugs and that she was feeling very well again after the diagnosis, and combined with the Zen (ARG), had calmed her.

C.B. and I discussed the underlying causes of the arthritic condition, which she now referred to simply as 'arthritis', and I again brought up the subject of stress and the adrenals. C.B. had the kit box for the ASI test sitting at home, not yet done. We agreed that there was no real point in testing her female hormones since she could not take exogenous hormones and we would not want to enhance female hormones via nutritional means, either. The adrenals and thyroid hormones are most often the hormones to support during and after menopause, which is why I was keen to know what her cortisol output was, since I suspected too low a level.



I also introduced the concept of a compromised gut lining and possible food intolerance, dysbiosis or possible infection which could also have been a trigger, and we discussed the nature of how these might be tested. There was no evident sign of these imbalances, however, so this was more of a theoretical conversation.

C.B. had done so well, that she naturally wanted to continue with the same programme as before. However, we agreed that it may be ideal to determine the lowest dose of the supplements that continued to have the same benefits. Therefore, I recommended her to make gradual reductions to achieve the new doses for a number of the supplements below.

I have experience with this sort of situation, when a patient has achieved marked success on a relatively large supplement programme, and I have found that the motivation and compliance is all the greater, in spite of the evident benefits, if the patient becomes as much in tune with the benefits of the supplements as possible. The process of gradually reducing the supplements and determining the lowest dose for the desired benefit, the more likely the patient is to abide by the programme and appreciate what it is achieving.

Second Anti-Inflammatory Supplement Programme – October 2014		
Bio-D-Mulsion Forte (BRC) (emulsified vitamin D3)	1 drop at dinner (2,000 iu)	
ALA-Release (ARG) (alpha lipoic acid supports	1 with each meal – reducing to 1 with breakfast &	
glutathione levels & helps overall antioxidant	dinner	
status)		
Immuno-gG (BRC) (colostrum)	4 with breakfast & 4 with dinner – reducing to 2	
	with breakfast & dinner	
Arthred Collagen Powder (ARG)	1 scoop before 2 meals in a little water	
EFA-Sirt Supreme (BRC) (n-3 & n-6 fatty acids)	2 with breakfast & 2 with dinner	
KappArest (BRC)	3 with each meal – reducing to 2 with each meal	
ProBerry Amla (ARG)	1 scoop at 6-7 pm in water	
Zen (ARG) (I-theanine with GABA)	1 caps when needed	

#### December 2014

We met for the 3<sup>rd</sup> time with the focus being on her arthritic condition in December 2014. She had continued to feel well and be pain free, in spite of the prognosis. Her husband declared that he thought the diagnosis was wrong because his wife had done so well without medicines.

We examined the food she was eating, the usual physical exercises she engaged in, and discussed the whole sequence of events again. C.B. was so relieved to be well in December given the health stresses she had had in 2014. Christmas and New Year were going to be very busy times with lots of family and friends staying, and then a short holiday away, so she wanted to feel this well during that time.

A very similar programme was recommended to C.B. but I decided to omit the colostrum formula, and reduce the collagen powder to once a day.

Third Anti-Inflammatory Supplement Programme – December 2014		
<b>Bio-D-Mulsion Forte (BRC)</b> (emulsified vitamin D3)	1 drop at dinner (2,000 iu)	
ALA-Release (ARG) (alpha lipoic acid supports	1 with breakfast & dinner	
glutathione levels & helps overall antioxidant		
status)		



Arthred Collagen Powder (ARG)	1 scoop before 1 meal in a little water
EFA-Sirt Supreme (BRC) (n-3 & n-6 fatty acids)	2 with breakfast & 2 with dinner
KappArest (BRC)	2 with each meal
ProBerry Amla (ARG)	1 scoop at 6-7 pm in water
Zen (ARG) (I-theanine with GABA)	1 caps when needed

## January 2015

C.B. came to meet me again with some mild distress in January, 4 weeks after our previous consultation. She had been so busy at Christmas time, and had felt so well that she had stopped taking the supplements. After two weeks of this, she felt some pains first thing in the morning in her thumb joints. This prompted her rapidly to take the supplements again, except the red berry powder (ProBerry Amla) which had run out, and within days the pain disappeared again. It was a useful lesson to teach us that the underlying disposition to her arthritic condition remained.

Her husband also witnessed this and changed his view of what his wife 'had' in terms of a condition, and more fully appreciated the benefits of "all those pills".

I explained how I felt that the change in her hormones due to the sudden cessation of HRT, combined with the her sensitivity to stress may well have led to a reduced cortisol output and that this would be a useful test to have done. C.B. still had the test kit. However, for one reason or another she has not done the test. I tried to find out a little more, but in spite of knowing this lady quite well, I was not able to persuade her to do the test. I believe, but I could be wrong, that she saw the test as a medical confirmation of having something wrong with her, even though I described it differently, and she does not want to know about that. This helps to give some context about the nature of her sensitivities (to stress).

I recommended the same anti-inflammatory programme to C.B. and resisted the temptation to reduce any of the supplements so that C.B. could have an experience of pain-free living and we agreed we would review the programme in a few months time.

Fourth Anti-Inflammatory Supplement Programme – January 2015		
Bio-D-Mulsion Forte (BRC) (emulsified vitamin D3)	1 drop at dinner (2,000 iu)	
ALA-Release (ARG) (alpha lipoic acid supports	1 with breakfast & dinner	
glutathione levels & helps overall antioxidant		
status)		
Arthred Collagen Powder (ARG)	1 scoop before 1 meal in a little water	
EFA-Sirt Supreme (BRC) (n-3 & n-6 fatty acids)	2 with breakfast & 2 with dinner	
KappArest (BRC)	2 with each meal	
Zen (ARG) (I-theanine with GABA)	1 caps when needed	

#### February 2015

C.B. and I spoke on the phone as an agreed catch up, and she reported that all was well. She loved feeling so fit and well and had not experienced any pains at all, and yes, she was taking all of the supplements.

We agreed to speak again in March 2015.



## **Supplement Information**

#### **Bio-D-Mulsion Forte (BRC)**

provides 2,000 iu per drop of emulsified vitamin D3. A product that has been proven to raise vitamin D levels. It is essential to ensure adequate and optimal vitamin D levels at times of healing.

### **ALA-Release (ARG)**

Advanced sustained-release formula, with stabilised R-lipoic acid and biotin. ALA has important antioxidant functions. It also helps restore or recycle other antioxidants to their active states, including vitamins C and E, Coenzyme Q10, and glutathione.

# Immuno-gG (BRC)

Colostrum can help to reduce intestinal inflammation, to heal the gut lining and promote a stronger immune system. Colostrum has both GI & systemic anti-inflammatory actions.

### **Arthred Powder (ARG)**

A patented, pre-digested collagen powder that has demonstrated in a multicentre randomised trial to reduce articular joint arthritic pains and reduce the need for pain medications. In addition, it has also been useful to heal the gut lining and support skin health.

# **EFA-Sirt Supreme (BRC)**

Dr Mark Houston's combination fatty acid product with EPA & DHA and GLA in a ratio of 2 parts omega 3 to one part omega 6. This has a more profound anti-inflammatory role to play than fish oil alone, and the importance of omega 6 needs to be heeded in psoriasis. The intention was to only use this for the first phase before using omega 6 fatty acids only.

#### 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.

### **ProBerry Amla (ARG)**

ProBerry-Amla™ is an all-natural blended Berry and Fruit powder, an invigorating and refreshing red -blue-purple-berry Superfood. ProBerry-Amla™ provides a variety of fruit and berry extracts, including the Indian superfruit Amla ("Amalaki", or Indian Gooseberry), Chinese fruits Jujube and Gojiberry, Pomegranate, Acai, Bilberry, Aronia Berry, Raspberry, Strawberry, and Maqui. The formula is completed with Acerola Cherry, Grape Seed Proanthocyanidins, friendly Probiotic bacteria, and fibres.

**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

It is not often that I meet a patient, especially one that I already know, who experiences the onset of an inflammatory condition and is diagnosed within a week or so and then sees me within days of the diagnosis. This means that there was only a short term expression of the condition, even if it had taken some months



before manifesting. The likely trigger of C.B.'s arthritic symptoms is the discontinuation of HRT, on which she had felt very well.

The long term stress that she has perceived is a likely contributor to depleted adrenal function, in my opinion, and this leads onto a weakness in the reporting of this case, and that is the lack of confirmation of the cortisol levels.

My impression is that it is much more likely that C.B., a patient well known to me, would follow such an extensive supplement programme compared to a patient I had only met for the first time. Equally, since C.B. was already following what may be perceived as close to an auto-immune protocol diet, with an avoidance of gluten and most grains and dairy and alcohol and refined foods, it meant that the total sum of the nutritional intake was achieved relatively easily. However, for a new patient to engage in such changes would require much effort, and this may also have taken time, and therefore, it is possible those benefits may be slower in manifesting. There was also some cost to the many supplements.

That said, it is not known how much more severe C.B.'s symptoms would have been had she eaten a standard western diet.

I would like to have known C.B.'s cortisol and vitamin D & compared the before and after. The former may represent a key target for therapeutic intervention which results in a longer term and less palliative solution, especially when combined with the anti-inflammatory programme.

## The literature relevant to this case report

There is research evidence which links the change of hormones in menopause as a contributory factor in the development of OA.

There is much published evidence to support the use of natural remedies and nutrients to reduce inflammation: turmeric extract & other botanicals in the KappArest (BRC) formula, and the collagen powder, and in restoring vitamin D, glutathione and antioxidant support, omega 3 & 6 fatty acids, & colostrum too.

#### The rationale for your conclusions

C.B. had evident signs of inflammation and the diagnosis of OA. Given C.B.'s express desire to use natural remedies over the prescribed drugs made it quite straightforward to know what to recommend, and I selected remedies that addressed inflammation from all perspectives that I could: plant extracts, phytonutrients, antioxidants, fatty acids, vitamins, collagen.

Inflammation is one of the most commonly presenting underlying metabolic imbalances seen in my patients and therefore I have easy familiarity with these products.

# The main findings of this case report: What are the take-away messages?

In spite of leading a very healthy lifestyle and eating an excellent diet, and with no family history this case shows that it is possible for a slim, health-conscious, drug-free (caffeine & alcohol) middle aged woman to suffer from an inflammatory condition associated with the other end of the health spectrum (i.e. overweight, poor diet, drinker, smoker).

The abrupt lack of oestrogen and progesterone, with a probable (my opinion) insufficient output of balancing cortisol and DHEA, appear to have been the mediators. We still do not know how great a contributor her adrenal hormone levels are, but it is my intention to find this out.



A lesson learned is that there is not necessarily a need to rely on medications to overcome arthritic symptoms, and a natural, non-drug approach can resolve those symptoms without the potential side effects of those drugs. However, for the average person to engage in such an eating plan and supplements may be considerably more challenging than for this specific patient, C.B. Long term follow ups will help this case take on a greater validity in terms of joint stability and symptom management.

C.B. has altered her medical destiny by taking her health into her own hands and engaging in a potent, natural anti-inflammatory programme that is a complete alternative to the medical treatment, with no known side effects.

# **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.

C.B. was certainly in shock with the experience and then the diagnosis of her condition in September 2014, especially as it followed on from the earlier shock of the DCIS and then the lumpectomy in May 2014.

When she came to see me in September 2014, she had confidence that a natural approach would work but it is not placebo effect, in this practitioner's opinion, which led to the positive outcome and successful resolution of her arthritic condition.

Therefore, C.B. has achieved what she thought could be achieved which is a resolution of her OA with nutritional intervention. She is thrilled about this.

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

The patient is not aware his case history is being used, and all identifiable data has been removed. C.B. 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

Antony Haynes BA(Hons), Dip ION, practices in his practice The Nutrition Clinic Ltd, in London.