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 PTSD patient improves in a matter of months with the appropriate 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 nutritional focused approach to the resolution of a group of symptoms that are referred to as Post Traumatic Stress Disorder (PTSD).

The condition develops after the person has been exposed to one or more traumatic events which include but is not limited to warfare, serious injury, sexual assault, or the threat of imminent death that result in feelings of intense fear and powerlessness, illnesses and operations, post still birth, & survivors of natural disasters. This may include cancer treatment, for example, and may also extend to the family of the person affected.

The diagnosis is made when a group of symptoms continue for more than a month after the occurrence of the traumatic event. These symptoms typically include hyper arousal, disturbing flashbacks, avoidance or numbing of memories of the event but may extend beyond this to an inability to function in every day, ordinary life due to intrusive thoughts & perceived ongoing presence of the stressful event(s).

The majority of people who have experienced a traumatic event do not develop PTSD.

Research shows that women are more likely to experience higher impact events, and are also more likely to develop PTSD than men. All types of people at all ages are affected.

Screening tools and questionnaires have been designed to identify PTSD and include Davidson Trauma Scale, Impact of Event Scale and the Post-traumatic Symptom Scale. These scales focus on the psychological symptoms and profiles rather than biochemical imbalances, although there are studies that do focus on hormonal status in those with PTSD in which glucocorticoid hormones feature along with the HPA (adrenal) axis, and the HPT (thyroid) axis.

The numbers of sufferers of PTSD is a challenge to identify, because there are a multitude of different sources of trauma in life. The severity of the condition warrants further appreciation of those at risk and those suffering from PTSD.

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

Post Traumatic Stress Disorder (PTSD), anxiety, glucocorticoids, cortisol, HPA axis, thyroid hormones, arousal, fatigue, tired.

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

Two years prior, this 54 year old man, M.T. had cycled with a few (determined) friends from John O' Groats to Land's End to raise money for charity. The 980 miles were covered in 9 days. Then in the Autumn of 2013, M.T. involved himself in another ride, but this time, one that crossed international boundaries, again to raise money, and there were some serious cyclists involved.

After the 7 day ride, during which he had pushed himself to the extreme of his riding & fitness ability, M.T. could not calm down and found that not only was his mind racing but also his heart was. His sleep as well was disrupted. This continued for months and M.T. became more and more exhausted and 'wired' and sought medical help. He was diagnosed with PTSD and prescribed beta blockers and anti-anxiety medication.

He feared for his sanity, contemplated suicide and felt dreadful. This went on for some months, even whilst taking the medication which helped to some degree and left him feeling number than without. On speaking to his neighbour he had heard of me, and then sought my advice to help him resolve his PTSD, of some six or seven months duration at our first meeting.

After only three months on a specific nutritional programme, M.T. reported that he was fundamentally better, had stopped all but one of the medications which he was reducing and still improving day by day. He was relieved, impressed and committed to his more optimal eating programme & supplements.

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.*

M.T. is a 54 year old Caucasian man originally from Cheshire but who moved to London as a young adult and he now lived in NW1. He is 6 foot 1 inch tall (185.42 cm), and weighs 15 stone (93.33 kg). He is married with two children who attend university.

M.T. revealed that he had always pushed himself in life. Whilst he had never been very sporty he had been a runner and after that cycled a lot. He had set up a number of businesses and had semi-retired whilst still owning two of them. He had also always been keen to volunteer to help with projects and he would then direct his energy to those events, outside of his work. He has been and still is very much goal oriented, and he had invariably always achieved his goals. He also confided in me that he had never felt 'good enough', for as long as he could remember.

Since the week long ride with cyclists who were on average twenty years his junior, he had not only not slept through for a single night, but was exhausted, depressed, even suicidal on occasion (which he had talked about with his GP), could not think clearly, had no sex drive or function, had become extremely anxious, and his bowel motions had also become too frequent. He had developed anxiety about fictional multiple diseases he had too (hyperchondriacal).

M.T. had met with his GP on a number of occasions and three months after the ride had received the tentative diagnosis of PTSD, based on symptoms and the Dr's opinion as opposed to a validated scale or questionnaire. He had looked it up and found that his symptoms and state of ill health matched that for PTSD but the causes were quite different than usual – i.e. a hard endurance bike ride.

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.*

Medically speaking, M.T. had been in reasonably good health during his childhood and young adulthood, with just the usual sore throats and coughs. He had broken some bones, "just like everyone else" he declared. He had worked hard in his twenties and thirties and not missed many days of work due to illness.

In his forties, he had found more fluctuation in his energy and motivation, he admitted, but he never showed this to others. His weight had varied more since he was about 40 years old too.

He had always fallen asleep easily and found latterly that cat naps helped him to feel better, and he was always an early riser at 6 am.

His father had type II diabetes, diagnosed a few years ago, and his mother had chronic obstructive pulmonary disease (COPD) from it was presumed, smoking years ago. Notwithstanding these conditions, they were in quite good health, M.T. told me, and they travelled south to visit their grandchildren and went on holidays abroad once a year to the Mediterranean (hot and dry) where it suited his mother's lungs.

His older brother was in good health as was his younger sister, as far as he knew – they both lived in Cheshire so he did not often see them.

M.T.'s weight had the inclination to rise unless he applied himself to what he was eating. In this way, he often found he needed to go on a caloric restricted diet every few months, which he had done successfully for over a decade. However, in the last year or so, in spite of the cycling, he was reaching his heaviest ever weight. He had been close to 16 stone before the 7 day cycle and had worked hard to lose weight before the start of the event. This meant that he was on a restricted diet (calorically speaking) for two weeks prior to the ride.

Medically speaking he had never had anything significantly wrong with him, and he'd had regular annual check-ups which included typical pathological orientated blood tests.

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

In September 2012, M.T. cycled 980 miles from one end of England to the other end of Scotland. He seemed to have recovered just fine from that.

He had gained weight afterwards, perhaps predictably, and shortly before the beginning of September 2013, the start of the international charity bike ride, he went on one of his 'crash diets', whilst still training hard. He lost 8-9 lbs in weight.

In September 2013, he cycled as hard and as fast as he ever had for seven straight days. From that moment, he found that he could not relax or sleep properly. He visited his GP after a week of this and started sleeping pills but they made him feel like a 'zombie' so he stopped those.

A few weeks after this, now in early October 2013, he visited the GP again and was prescribed a beta blocker, Propanalol. He returned again to say that whilst this had had some benefit he was still wired, and now also exhausted and anxious. He was prescribed anti-anxiety medication at the end of October 2013.

In December 2013, M.T. had experienced the misery of insomnia for months, and he sought advice from his GP again. At this point, the diagnosis of PTSD was made, even though there had not been an evident traumatic event. However, the deterioration in health had been traumatic as far as M.T. was concerned.

He had been referred to a psychiatrist but he had an aversion to this profession and had not attended any appointments. He instinctively felt there was something biologically wrong with him since the bike ride.

M.T. was still aware of his heart beat/rate even though he was taking Propanalol and the rate per minute had reduced down from 90-100 to about 60 b.p.m. He felt his heart beat in his chest, sometimes in his neck and head and sometimes in his body.

At the beginning of April 2014, M.T. attended his first appointment with the Nutritional Therapist; myself. His goals were as follows:

- To sleep well through the night
- To be free of anxiety
- To have great energy all day
- To get his brain function working again
- To have normal bowels again
- To see a return of his sex function
- To get his health back to the state it was in August last year
- To lose body fat and get back to 14 stone

He attended follow up appointments each month for four months which are detailed below.

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 recent years the standard haematology tests which included lipid profiles and LFTs and blood pressure checks were all normal. Recent blood tests also confirmed that all markers were well within range.

An adrenal stress profile test was recommended at the outset, in April 2014, and the results were: Cortisol: 21.1 (12-22), 9.0 (5.0 – 9.0), 1.8 L (3.0 – 7.0), 3.4 H (1.0 – 3.0). The DHEA was 0.63 (0.20 – 0.70) and 0.16 L (0.6 – 3.0). There were some out of the range levels, but these did not explain M.Ts extreme disruption to his health. One might have expected a significant out of the range level if M.T.'s adrenal hormone levels were involved in his current state. Whilst not ideal, this salivary cortisol and DHEA test indicated to me that the imbalances existed elsewhere.

As a result of these relatively normal results, at the next appointment in May 2014, a full thyroid profile test was recommended. What also prompted the consideration of thyroid hormone investigation was the fact that M.T. reported that he had green stools, which were loose. I am aware that the thyroid hormones are linked to

bile flow and whilst under-active hormones lead to constipation, over-active hormones can lead to looser movements, and more yellow or greener in colour which reflects the rate of bile output.

The results showed no auto-antibodies out of the range but a raised level of thyroid hormones. Total thyroxine was marginally elevated at 158 (58-154), FT4 was also slightly raised at 27 (12-22), the FT3 was high in the range at 6.2 (2.8-6.5), Reverse T3 was normal at 0.44 (0.14-0.54).

No other lab tests were undertaken.

M.T. presented as being overweight, but this in itself would not explain his condition.

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).*

April 2014
Based on M.T.'s case history and evident need for resilience and fortitude, recommendations were made for him to eat a diet that balanced blood glucose and therefore cortisol and insulin.

M.T. was educated about what to eat to achieve as stable a blood glucose level as possible, and given examples of suitable breakfasts and lunches and dinners and snacks. For each meal, it meant that there was some change required. He had never really eaten protein for breakfast, for example, and had not ever really included vegetables at lunchtime, and had almost always consumed a relatively large portion of gluten-containing carbohydrate at dinner.

An initial supplement programme was recommended to M.T., and this was before the salivary cortisol and DHEA results were known.

Programme One Supplement Name & Brand	Dose
Stabilium (ARG)	4 softgels with breakfast
Stamina Caps (BRC)	2 with each meal
Super Adrenal Support Formula (Dr W)	1 with each meal

In addition to the nutritional advice, time was taken to help M.T. understand how to relax consciously before eating or at any other time that he felt anxious, which at this stage, was a lot of the time. We came up with something that worked very well, although it was not known it would be so effective at the time. This was the performing of mental arithmetic. It served as an effective method by which to stop his anxious thoughts and induce calm.

I also recommended that he seek additional professional help from a psychotherapist which he resisted and I uncovered his bias against psychological counselling, but when I explained more about it, and that I had met the therapist, he was persuaded because he was desperate. Consequently, he met with a therapist on three occasions in the coming months and had telephone conversations on a further three occasions.

Follow-up and Outcomes. *Please describe the clinical course of this case including all follow-up visits as well as (1) intervention modification, interruption, or discontinuation, and the reasons; (2) adherence to the intervention and how this was assessed; and (3) adverse effects or unanticipated events. Please describe (1)*

patient-reported outcomes, (2) clinician-assessed and -reported outcomes, and (3) important positive and negative test results.

May 2014
M.T. met with me a month after the first appointment. He had eaten well and followed the recommendations, and his appetite had improved, he told me. He clearly followed what he was told when he decided to do so. He had also been dedicated with his supplements.

His sleep remained unchanged and was very broken and varied from night to night. He still felt spaced out, like 'jet lag', and feared he should not drive any more, but the idea of taking public transport filled him with a higher level of anxiety so he still drove.

His mind still raced, but he advised that the mental arithmetic had been so effective when he had used it, and he was using it more and more. He had also found the numbers game Sudoku was also helpful, so we referred to these as "numbers therapy"; as long as his brain was engaged in numbers it was not thinking about aspects that would make him anxious.

M.T.'s overall health state was not too dissimilar to that of the month before, ultimately, although he said he did feel more positive and that he was on the right track with a nutritional approach. He had lost a few pounds and liked understanding about insulin and cortisol which he had never known before. He was still frightened, anxious, had 'brain fog' whilst at the same time a racing mind. He was taking still taking sleeping pills (drugs), and anti-anxiety medication and beta blockers.

At this second meeting, at which we discussed the adrenal results, M.T. described to me his green stools and this was when the recommendation was made for M.T. to have a complete thyroid profile test.

Although there was little positive improvement, aside from the ability to have some control at will of his mind with the mental arithmetic, M.T. said he felt more positive overall and was confident that a nutritional approach was the right thing. He had also met with the psychotherapist and had found that much more helpful than he had thought he would.

I recommended M.T. to continue with the same supplements until we received the thyroid test results.

May 2014
The thyroid results came back ten days later. The results showed no antibodies out of the range but a raised level of thyroid hormones. Total thyroxine was marginally elevated at 158 (58-154), FT4 was also slightly raised at 27 (12-22), the FT3 was high in the range at 6.2 (2.8-6.5), Reverse T3 was normal at 0.44 (0.14-0.54). The TSH level was 0.51 (0.40-4.0), which is low in the range.

We had a telephone consultation to discuss the results and what they meant and I recommended a revised supplement programme specifically designed to support the elevated level of thyroid hormones.

Programme Two Supplement Name & Brand	Dose
Cytozyme THY (thymus) (BRC)	3 tabs with each meal
Bio-3B-G (BRC)	4 with each meal
Bio-Ae-Mulsion Forte (BRC)	8 drops at breakfast for two weeks and then stop (100,000 iu per day for 14 days)

June 2014
We met just under four weeks after the first appointment, when M.T. had finished the two week dosing of vitamin A, which helps to reduce a hyper thyroid state, as does the thymus glandular extract.

M.T. was still feeling positive, and told me that every day in spite of the majority of his symptoms remaining pretty much the same, that he was getting stronger and stronger. He had had one more appointment with the psychotherapist and was still finding that the mental arithmetic and Sudoku were stopping his anxiety.

The major benefit for M.T. was that he was sleeping better than he had in many months. This alone would no doubt bring benefits, and probably explained why he was feeling stronger. M.T. was now taking a walk every day which he had not done before. His bowels had also improved and they had reverted to a more normal colour. He was able to eat more slowly and although he spent most of his days in a state of control of how he felt, he was very pleased that he could exert this influence over his condition.

The supplement programme was to continue very much as before, without the vitamin A, but with a higher dose of the active B vitamins spread over the day.

Programme Three Supplement Name & Brand	Dose
Cytozyme THY (thymus) (BRC)	3 tabs with each meal
Bio-3B-G (BRC)	3 with each meal, 3 mid morning & mid afternoon

June 2014
We spoke on the phone 18 days after the follow up face to face meeting and discussed how he was getting on. He was committed to doing everything he could to get himself well and we both agreed that his tendency to possible ‘obsessive compulsive behaviour’ did help on occasion. I added the Super Adrenal Stress Formula (Dr W) back into his programme.

Programme Four Supplement Name & Brand	Dose
Cytozyme THY (thymus) (BRC)	3 tabs with each meal
Bio-3B-G (BRC)	3 with each meal, 3 mid morning & mid afternoon
Super Adrenal Stress Formula (Dr W)	1 with each meal

July 2014
We met two weeks after the phone call, and about a month since the previous face to face consultation. M.T. was beaming when he entered the room. He told me he was delighted to report that he was feeling so much better and was so much more normal. He could not believe how short a time it had taken overall, even though some days had felt like an age in themselves. His sleep was much improved, still, and he had managed to stop the anti-anxiety pills as well as the sleeping pills and was now reducing the beta blockers, with his GP’s knowledge.

M.T. was close to tears when he told me that he had not known if he would ever get well again.

His energy was improved, his brain was not spacy all the time, just from time to time, he still engaged in the mental arithmetic which he called a “life saver”. He was more bodily aware than he had ever been before and sensed more clearly when he ate food that made him feel less than well.

Sugar, he noted made his pulse resonate in his chest, and if he ate a larger portion of potato, for example, then he felt foggy headed afterwards.

He had bought a book on the Paleo diet and found this to his liking and felt better eating protein with vegetables and non-grain carbs which was what I had recommended to him. He had also lost some weight.

He was very thankful that he had emerged from the nightmare of what he knew was termed hyper arousal and was so rapidly close to being very well. He is confident that he will come off the beta-blockers entirely quite soon and then re-engage in sensible cycling and not push himself too hard again.

The maintenance programme of supplements that he is following is this, which involved swapping the Super Adrenal Stress Formula (Dr W) with Stabilium (ARG):

Programme Five Supplement Name & Brand	Dose
Cytozyme THY (thymus) (BRC)	3 tabs with each meal
Bio-3B-G (BRC)	3 with each meal
Stabilium (ARG)	4 with breakfast

We have arranged to meet in September 2014 to discuss his ongoing needs and to identify when a repeat thyroid test is to be done.

Supplement Information

Stabilium (ARG)
Contains a high concentration of small peptides similar to pituitary and hypothalamic stimulating peptides which act as hormone precursors to neurotransmitters such as GABA, encephalins and endorphins which support the nervous system and help to adapt to stressful conditions. It has been used clinically to support ‘resilience in stressful situations’, and is fine to take alongside anti-depressants.

Stamina Caps (BRC)
This formula provides thiamin, pantothenic acid, L-Carnitine, octacosanol, coenzyme Q10 & OOrganik-15™, which may serve to aid in energy production and to increase stamina. In my clinical experience this formula has made a positive contribution to energy and also helped to stabilise appetite too.

Super Adrenal Stress Formula (Dr W)
This is a multi vit & min that provides many nutrients that support adrenal function. It supports a healthy blood glucose balance.

Cytozyme THY (thymus) (BRC)
This supplement provides an extract of neonatal thymus glandular at 125 mg per tablet. Thymus glandular opposes thyroid hormones and has been used clinically to reduce high levels of thyroxine and T3.

Bio-3B-G (BRC)
This is a low dose B vitamin formula in which the B1, B2 & B6 are in their active forms. It has been very effective in supporting energy in patients and helps to reduce cravings in some patients too. It is a formula that directly supports neurological function.

Bio-Ae-Mulsion Forte (BRC)
This formula provides 12,500 iu of fully emulsified vitamin A per drop. Vitamin A is vital for the healing of epithelial tissue and the management of mucosal tolerance, and in higher doses has been found to help temper an elevated thyroid hormone level.

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
M.T.'s diagnosis of PTSD was made on the basis of his presenting symptoms and the event that lead up to it. It was not based on corroborating lab or questionnaire evidence, which is typical of such a diagnosis. However, the finding of high levels of thyroid hormones, which were shown to his GP but were dismissed as being a consequence of being so anxious, M.T. told me. The access to the adrenal and thyroid tests proved to be key in this case since it steered the therapeutic supplement programme so strongly.

M.T. was quite precise about matters, and kept notes as well so that I could have a good level of confidence that what he told me was accurate.

We met or spoke regularly from the first appointment and therefore the flow of information and tracking of M.T.'s improvements was readily possible.

The literature relevant to this case report
There is a relative significant amount of literature on the subject of imbalances in glucocorticoid (adrenal) hormones and imbalances in the HPA axis, and a considerably smaller devotion of study to the HPT (thyroid) axis, which is understandable and proportionate to its incidence, in my opinion. Nonetheless, there is evidence in the literature that in some PTSD patients there is an imbalance in the HPT.

The rationale for your conclusions
The failure of the adrenal stress profile test to offer a reasonable explanation for the way that M.T. felt led to the questioning of what else could be going on. Within the endocrine system, the thyroid hormones are naturally a candidate. However, the association of the elevated thyroid function with the passing of green stools with raised levels of thyroid hormones strengthened the confidence to recommend the thyroid test which revealed the high T4 and high in the range T3.

The main findings of this case report: What are the take-away messages?
As with any case, the thorough case history provides the vital information. Spending time with the patient in this instance proved invaluable, since prior to our first meeting, no doctor had spent more than 15 minutes at one time with him. The consultation helped develop rapport and trust. M.T. was already keen to engage in nutritional therapy and did not need motivation for that, but he did need to know why he was doing what he was doing. Then he stuck to it rigidly, which we discussed above.

In the absence of much experience in the condition of PTSD, some familiarity with how the body may or may not work under duress and given the nature of the triggering event was helpful.

Familiarity with a range of lab tests, functional and conventional, proved very helpful.

The knowledge of what to do when faced with a relatively rare specific thyroid imbalance (i.e. raised levels not low levels) was also of great help, and gave the patient immediate confidence.

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.

M.T.'s views have been expressed within this case report. However, here is a summary of his views of his experience.

"I was frightened that I was mentally ill and that I would be ill forever! I was desperate for help but did not want to rely on medications. I knew there was a biological reason for what had happened. After reading on the subject, I thought it was an adrenal problem and would have gone down that route had it not been for you finding the thyroid imbalance.

It's been a massive thing for me to recover my health, I am eternally grateful, and I still can't quite believe that I have managed to get well so quickly. At the same time, when the days felt like years the mental arithmetic 'distraction' was superbly useful and it felt at the time like it saved my life and stopped my suicidal thoughts.

I'm almost off all drugs, I'm sleeping well, I feel good and I've a found a way to eat healthily which won't have me putting on weight. I've got my health back, my life has not fallen apart as it was doing, I have kept my businesses and my wife! I can't tell you what this means to me!"

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. M.T. are not his 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) DipIOn, Nutritional Therapist has a practice in Harley Street London UK.