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 40 year old woman with extreme and severe abdominal bloating which resolves with NT, & colonics helped too.

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 extremely severe abdominal bloating in a 40 year old mother of 2. Mrs E.R. had been suffering for 18 months with ever worsening pain and discomfort and an ever more visibly bloated belly, which was 'rock hard'. She certainly looked pregnant.

This case recounts the single most extreme example of abdominal bloating and distension that I have been presented with to date.

This lady had been provisionally been diagnosed with "IBS" by her GP based on the presence of a sole sign/ symptom with virtually no other associated digestive issues such as wind, cramps, constipation or diarrhea nor any further evaluations. One has to question such a generalised diagnosis.

Abdominal bloating is an extremely common sign and symptom that is experienced by a significant minority of the clients that seek help from NTs. Data and statistics on functional imbalances vs pathologies is considerably harder to come by, which means it is not straightforward to provide details of the incidence of abdominal bloating in any given population group. Information about IBS may be available, but in this patient case, it was the severe abdominal bloating which was the health concern and not other signs and symptoms included in the broad diagnosis of "IBS".

However, the incidence of IBS is described in a recent paper in the journal 'Epidemiology'. Depending on the diagnostic criteria employed, IBS affects around 11% of the population globally. Around 30% of people who experience the symptoms of IBS will consult physicians for their IBS symptoms. These people do not have significantly different abdominal symptoms to those who do not consult, but they do have greater levels of anxiety and lower quality of life. Internationally, there is a female predominance in the prevalence of IBS. There is 25% less IBS diagnosed in those over 50 years and there is no association with socioeconomic status. IBS aggregates within families and the genetic and sociological factors potentially underlying this are reviewed. Patients diagnosed with IBS are highly likely to have other functional disease and have more surgery than the general population.

- Canavan C, West J &Card T. The epidemiology of irritable bowel syndrome. Clin Epidemiol. 2014; 6: 71–80. Published online 2014 Feb 4. View Full Paper

The subject of bloating has been explored and discussed in a review article published on the Clinical Education site in November 2009 which can be accessed here: **http://tinyurl.com/jy6h89f**. In this brief review a useful diagram appearing in an article from Gastroenterology in May 2009 summarised the potential contributors to bloating. (Gastroenterology. Volume 136, Issue 5, May 2009, Pages 1487-1490).

A summary of these contributory factors is provided here. Access to the references for these findings can be accessed via: **http://tinyurl.com/jy6h89f.**

'Too much gas'. Despite the immediate instinctive sense that this must be correct, detailed studies have failed to demonstrate this as a substantive cause.

Abnormal colonic fermentation has been suggested in some studies.

Defective handling of exogenous gas loads within the GI tract in patients with bloating has been convincingly identified in several studies of patients with IBS complaining of bloating. Especially in terms of transit of gas and tolerance (pain) of it.

Mechanistically, an altered GI reflex activity and enhanced sensitivity to nutrients (intolerances) have been found to be important factors involved in the impaired gas transit in these patients, as well as in symptom perception. These symptoms mostly emanate from the small rather than the more logical large intestine.

These studies suggest that IBS patients do not necessarily have to produce more 'gas' to have 'gas-related' symptoms, instead these may be due to motor dysfunction, producing a transport problem, and enhanced visceral sensitivity.

Another possibility is focal gas pooling which may release abnormal viscerosomatic (a muscular response to stimulation of a nerve-receptor organ in a visceral organ) responses, resulting in bloating and visible abdominal distension of the diaphragm.

Excess lumbar lordosis, (forward curvature of the spine, producing a hollow in the back) weak abdominal musculature, and voluntary protrusion of the abdomen have been suggested to be of importance in the generation of bloating and abdominal distension, but none of these alterations could be confirmed by a CT study.

However, a number of other careful studies comparing healthy volunteers and patients, have provided important explanations of abdominal distension in patients with functional GI disorders. They show that abdominal accommodation to volume loads is an active process involving local muscular response and that patients with IBS and bloating have impaired viscerosomatic reflexes and abdominal wall muscular control. In patients with bloating, abdominal perception and distension in response to intra-abdominal volume increments are exaggerated markedly and associated with muscular dystony (a disorder characterised by unusual or involuntary movements or muscular spasms) of the abdominal wall.

Comparing two different groups of patients with bloating revealed two different mechanisms:
Group 1: IBS patients with bloating,
&
Group 2: Intestinal dysmotility (Food fails to move normally through the stomach and intestines, there often is distension of the stomach and intestines as fluid collects, and is frequently painful) and bloating.

Both sets were scanned with CT at ease and during bloating. At ease they were the same but once bloated there were differences:

Patients with intestinal dysmotility demonstrated a true increase in total abdominal volume with upward movement of their diaphragm.

IBS patients had a very modest increment of the abdominal volume; instead the abdominal distension was related to downward movement of the diaphragm, placing stress on the phrenic nerve (this innervates the diaphragm and controls breathing), resulting in forward (distension) redistribution of abdominal contents.

Other less well-established/studied factors of potential importance are:

Abnormal mucosal immune activation. A large subset of IBS patients show gender-dependent mucosal infiltration of white blood cells and histamine correlating with abdominal bloating and dysmotility-like dyspepsia (Chronic or recurrent pain in the upper abdomen).

Altered bacterial flora, investigations using sophisticated measuring techniques have revealed that the faecal flora in patients with IBS is different from healthy controls. If this is a trigger rather than a result, changing the floral balance may provide therapeutic outcomes with little risk if probiotics rather than antibiotics are used.

Sex hormones in which changes in the production of female related oestrogen and progesterone influence IBS, bloating and bowel function.

Psychological factors, including somatisation (the presence of real and significant physical symptoms that cannot be explained by a medical condition, but are instead a manifestation of anxiety or other mental distress).

As I read the case history information for Mrs E.R. and as I listened to her story I had these potential contributory factors in mind. It occurred to me that there were a number of possibilities but with the lack of wind and gas, this cause seemed unlikely.

Mrs. E.R. had explored a range of interventions including some connected to nutrition and diet, but because the bloating occurred no matter what she ate and therefore seemed unrelated to any specific food she had not pursued it with more commitment until she met with me. The bloating had been persistent, 24 hours a day, for some months by the time we first met. E.R. had tried acupuncture and massage therapy and colonics. This had helped her to feel lighter, but in fact had no effect on the abdominal bloating. The colonic hydrotherapist had given E.R. feedback that there was an abundance of cleared matter at the appointments, suggesting an accumulation or retention within her colon. However, even with the relief of some volume of faecal matter, the distension remained. Nonetheless, E.R. had continued to have weekly colonics for the previous two months, as a palliative that offered some sense of relief.

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

Abdominal bloating, distension, IBS, gluten sensitivity, colonics.

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

Mrs. E.R. was very frank in her description of her health, and was not at all embarrassed at describing what occurred in her body and how she felt. She told me that although she was clearly overweight and that she felt tired and distracted the whole time by her abdominal bloating, the sole focus and goal she had was to be free of her swollen and painful abdomen. She was confident that she could achieve the weight loss once the bloating was gone.

E.R. had twin girls who were four years old. She had gained weight during the pregnancy and had not lost it. Life had most certainly been challenging since the twins had been born, and she had not anticipated it would have been as tough as it had. She had breast fed for 8 months, which had taken a significant effort on her part, and she had been constantly exhausted. However, at this time, whilst she had excess abdominal fat, she did not have any bloating. When the twins reached two and a half, E.R. began to experience regular abdominal bloating. Over the next few months, the bloating became more and more persistent until it was present 24 hours a day.

E.R. had visited her GP who had given a tentative diagnosis of “IBS” but offered no advice other than to eat more fibre. E.R. had been interested in healthy eating long before she had children and ate what she considered to be a healthy diet. She realised that the over-consumption of food and sugar had led to weight gain during pregnancy but she could not figure out what was contributing to the bloating, especially as the bloating was now persistent. For this reason, she had first sought help from an acupuncturist and then a physical massage therapist. However, five sessions with each had not resolved the bloating although they had both helped her to feel better in herself.

E.R. declared that her abdomen was now bigger and more distended than she was two weeks before she gave birth to her twins.

E.R. had returned to work when the twins were nearly three years of age, and employed a nanny to look after them during the day. She had a senior position within the company who had been in a position to re-engage her after the extended maternity leave. She reported that her energy and sense of well-being were very much affected by the bloating, but she hid this from her colleagues but she could not hide her distended abdomen.

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. E.R. is a 40 year old woman, with twins aged four. She is Caucasian, white British citizen, with a British father and a mother who was originally Czech but who now holds a British passport. She lives just north of London with her husband, and both work in responsible positions with their respective companies allowing them to engage a nanny and other help with their children and for them to go to work.

E.R. has enjoyed good health in her life, and she puts this down to the fact that her mother was very much into organic and natural eating and outdoor activities.

The extraordinary abdominal swelling did not respond to acupuncture or colonics, and this was the prime reason for seeking nutritional advice, even though E.R. swore that there was no direct impact of eating a certain foods.

E.R. acknowledged that she could lose 3 stone of weight but since her bloating started she had not managed to lose any weight with the usual measures or eating less. She was confident that she would lose the weight once the bloating has been resolved.

E.R. tapped her tummy to show me just how rock hard her belly had become. This did not change during the day now. She told me how her husband had felt her belly and been startled at how solid and hard it was. She really did look as if she were at the end of a pregnancy, with the distension commencing just below her rib cage.

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.*

E.R.'s family had no specific history of bloating, certainly not in the way that she experienced it. Her mother and father were still alive and relatively well; both were a little overweight and suffered from varying degrees of arthritis. E.R. had no history of any health conditions and had enjoyed good health during her life. Since the twins she had retained pregnancy weight and gained some more, and as a result of the bloating more than the weight she told me her energy was noticeably less than it had been when she was working before. Of course, there was also the difference of having been pregnant, giving birth to twins, and breast feeding for 8 months.

Along with the fatigue, I discovered, was the fact that E.R. had significant brain fog, which she had included in the overall description of being tired. However, when we discussed this, it became clear that it was not ordinary tiredness but rather symptoms of a 'drugged brain' alongside the fatigue.

E.R. repeatedly told me just how hard her belly was, and when she learned that she had brain fog as well as fatigue, she revised her health goals to address this as the second most important thing after resolving the bloating. The brain fog made her work much more challenging and she required significantly more will power to get her brain into gear and make decisions and follow things through.

As with all clients, I had read the detailed questionnaires before we met. However, I have seen the description of bloating many hundreds of times on a form, but not seen anything quite as pronounced as E.R.'s abdomen. She lifted her loose top to reveal a thin body suit garment to show me the extent of the swelling. It was very hard as she told me, retelling the reaction of her husband when he laid her hands on her belly. It was like playing a drum, she said, even with excess body fat.

She told me about her visit to the Doctor who had examined her, but this visit was over 10 months before and now her belly was even more bloated. I suggested that given the change and the extraordinary nature of the bloating that she revisit her Doctor so that he could be informed at least. She had not seen a gastroenterologist.

We had no lab tests, and only accounts of what emerged when she visited the colonic hydrotherapist. This therapist also used reflexology and pressure points to alleviate digestive discomfort but although E.R. felt better after each session, the bloating stubbornly remained.

E.R. had discussed food with the colonic hydrotherapist and they had explored her diet and the possible triggers or culprits that could lead to bloating. E.R. did eat a varied diet and within this there was some wheat and gluten grains and oats and dairy products and due to her fatigue, a little too frequent an intake of sugar which may be in the form of chocolate (usually dark) and sometimes jelly babies. She knew very well these were not good for her but she found they helped in the short term, so she kept a packet in her office desk at work. She ate a wide variety of vegetables every day, and was very conscious of feeding her daughters with the healthiest food. She ate organic meats & poultry and wild caught fish. She drank very little alcohol, and it tended to be wine when she did.

E.R. had not fully engaged in an elimination diet as yet, although she had cut down on wheat and gluten for a few months deliberately but this had made no difference to the bloating at the time. This was something that may well needed to be done, I remember thinking at the time.

Here is a summary of her health goals, and I added on the weight loss because E.R. was very confident that it would come off once the bloating was gone.

1. To be free of abdominal bloating, distension and pain
2. To have a clear head, to make decisions easily as before
3. To have good energy all day
4. To lose weight

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

Born in 1976 in London, to a then-Czech mother and British father, E.R. had always lived in England. She had been a healthy child and teenager, with no health issues she could remember.

In 1995, E.R. went to university and obtained a degree in business management and started to work in a large international company and had travelled within Europe mainly for many years with her work. There were some instances of traveler's diarrhoea and tummy upsets, but nothing had had any effect on her long term health.

In 2003, E.R. had married, aged 27, and she and her husband had committed themselves to work rather than to starting a family. Only 8 years later, in 2011, did they begin a family, and in 2012 E.R. gave birth to twins.

E.R. gained about 2 stone of weight during pregnancy, but she was not concerned about this.

After the birth, for 8 months in 2012-13, E.R. committed herself to breast-feeding her daughters. She became run down and exhausted and gained yet more weight. At this time, she had no bloating, just too much belly fat.

With over half of 2014 gone by, E.R. first noticed abdominal bloating. This became more and more frequent until it was there 24/7.

In 2015, E.R. returned to work and reported an increase in both her bloating and brain fog, which she had previously attributed to fatigue only. She found the work harder going than before mainly because of the brain fog.

In 2016, every day was blighted with a painful distension of her belly. In spite of acupuncture and more specifically, colonics, there was no change in the bloating and she felt tight as a drum, even with the belly fat layer (she spoke very honestly & directly about her body). She had a bowel motion every day but recognised

that this must not be complete due to the amount of matter that was removed by the colonics which she had once a week for the previous two months.

In late Spring 2016, E.R. visited me for Nutritional Therapy advice. Below is the account of what she did in order to resolve the painful and remarkable distension.

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*.

I considered a stool test for assessing her gut bacteria and digestion. I also thought about the value of conducting a food reactivity test, such as Cyrex Array 10 or the gluten and wheat-specific Array 3. These were the two test options that appeared to be most logical. At the same time, I had found so often that a strict elimination diet often proved as useful as any food reactivity test, for the majority of clients, and it also meant that the nutritional changes could be implemented right away rather than waiting for what might be 2 or 3 weeks before the blood test could be done and the results come back.

In my experience, I have found that post pregnancy and breast-feeding, there is often a need for pancreatic enzymes, which appear to be depleted by the whole reproductive process. However, I have as yet been unable to find corroborative evidence in the medical literature to support this. In practice, I have found that many women who have recently delivered have benefited from the addition of pancreatic enzymes. This, however, needs to be contextualised somewhat; there have always been a number of nutritional recommendations and not just solely pancreatic or digestive enzymes, so the health benefits may be due to a mixture or other reasons.

With the physical stretching involved, I also was alerted to the possibility that E.R.'s gut lining may have been compromised and inflamed.

I recounted the possible contributory factors for bloating, which included nearly all of the factors described earlier in this Case Report. We agreed that with the absence of excess gas and with the colonics that it did not appear to be a situation in which dysbiosis or imbalanced bacteria was involved. The incomplete evacuation that was indicated by the colonics sessions prompted me to consider the need to support the whole digestive process.

Ultimately, I proposed to E.R. that she engage in a 100% strict elimination diet and take digestive enzymes and remedies to support her gut lining.

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 foods to be eliminated were gluten and dairy products and refined sugars. I provided a list and suggestions of alternatives, most of which E.R. was familiar with. Whilst we were going through this, it was clear to E.R. that she was indeed consuming some gluten every day, albeit in subtle ways, such as via oats (cross contamination), or hidden in foods compared to eating slices of wheat toast all day.

First Supplement Programme	
Full Spectrum Digest (ARG)	1 at the start of each meal & 1 mid meal (2 with each meal)
ButryEn (ARG)	3 with lunch & 3 with dinner
IPS Caps (BRC)	2 at the start of each meal

We met, as agreed, four weeks later. E.R. insisted that I feel her abdomen in an attempt to show me that it was significantly less solid and hard than it had been!

E.R. had successfully abided by the elimination diet and removed gluten 100%, and dairy and no refined sugar. She had not felt better in any noticeable way for at least two weeks. In the third week, she noticed a softening of her swollen abdomen. Day by day after that time, her belly had softened further and reduced in size. Her husband could verify that this was the case. By the time she saw me, there was a 70% reduction in the tension in her belly, and she squished her own belly in front of me to show me that there was now give in her belly.

We spent time talking about her diet, the challenges of eating this way, but the nonetheless real benefit she had experienced thus far. She told me that the colonic hydrotherapist had noticed significant differences in the faecal matter as well as in the physical state of and E.R. It seemed that the food she was eating was better digested and less matter was being passed in the colonics sessions.

I recommended a revised programme to E.R. for the next 6 weeks, introducing some further gut lining support and a different digestive enzyme, this time being a pancreatic glandular which I believe offers more support to the pancreas gland itself than the vegetarian enzyme recommended in the first programme.

Second Supplement Programme	
Bio-6-Plus (BRC)	2 with each meal
ButryEn (ARG)	3 with lunch & 3 with dinner
IAG Powder (BRC)	1 tspn with each meal
IPS Caps (BRC)	2 at the start of each meal
BioDoph-7 Plus (BRC)	2 with breakfast & dinner

We met for a third time 6 weeks after the second appointment. E.R. proudly told me and showed me (through clothing) that her swollen belly was no more. She was completely free of all bloating. Things had improved day by day from the last appointment.

During this time period, however, E.R. had accidentally consumed some gluten and had become bloated within an hour and remained this way for many hours. This is what prompted her to revisit what she had eaten and then she found that there had been wheat flour in a gravy she had eaten at the previous meal. This was strong evidence for her that gluten was a major cause of her bloating. We discussed why instances of gluten consumption historically had not elicited such a response. In my opinion, it was because there were multiple contributory factors combined with an irritated gut lining and a change in bacterial composition leading to a generalised inflamed gut and bloatedness.

We discussed the re-introduction of dairy products and how this might be done – i.e. very deliberately, and away in time from any other likely culprit. E.R. grasped the idea of this and decided NOT to proceed with this whilst she was doing so well.

She reported that her brain fog was gone completely as well, but that her fatigue was still very much the same as it had been. Overall, she was more than delighted, and was confident that this would come and that she understood that there was still some repair work to be done.

The colonic hydrotherapist had been very impressed with the changes that occurred for E.R. and said that there was a significant change in the faecal matter she could now see in the tubes. She also reported that the parts of E.R.'s feet that related to her colon and liver were much less lumpy and hard.

I recommended E.R. to continue with a very similar programme for the next 6-8 weeks before considering a reduction in focus on her digestive system and a re-focus on her energy and adrenals, but I did include a formula which I have found useful in supporting energy levels in my clients (Stamina Caps).

Third Supplement Programme	
Bio-6-Plus (BRC)	2 with each meal
ButryEn (ARG)	3 with dinner
IAG Powder (BRC)	1 tspn with breakfast & dinner
IPS Caps (BRC)	2 at the start of each meal
BioDoph-7 Plus (BRC)	2 with breakfast & dinner
Stamina Caps (BRC)	2 with each meal

E.R. and I spoke on the phone 6 weeks after the third appointment and she happily confirmed that she was still bloat free and was feeling much more clear headed, as she had been, and that she felt the weight was coming off and she felt a gradual improvement in the energy that she had.

We agreed to meet in a further 6 weeks' time which, as I write this is in about a month's time. So, the story is not completely told yet, but the client outcome is so positive, I am sharing it.

The most extreme example of bloating I have ever encountered in a client was resolved by a gluten free, dairy free, refined sugar free diet combined with digestive enzymes and gut healing anti-inflammatory supplements. One might say that it was a text book account, although no text book I have seen has ever pictured an abdomen quite so pronounced as this one.

Supplement Information

Bio-6-Plus (BRC)
This product provides a pancreatic glandular concentrate (porcine). Each tablet provides 250 mg of the concentrate, and it is designed to support digestion.

BioDoph-7 Plus® (BRC)
A mix of 7 strains of probiotics of the lactobacillus & bifido strains. The 10 strains of probiotics appeared to have been effective to support A.R.'s immunity as part of a rotated programme. These strains have the potential to reduce inflammation & support a balanced immune response.

ButryEn (ARG)
ButyrEn is an enteric-coated, extended shelf-life formulation of the calcium and magnesium salts of butyric acid, designed specifically for delayed release in the gastrointestinal tract. Butyric acid (BA) is a short-chain fatty acid (SCFA) produced by certain commensal bacteria and their metabolic breakdown of fibre, and appears to support mucosal integrity as the epithelial cells utilise it. Butyric acid may support the integrity of the colonic

mucosa by acting as a primary fuel for the colonic epithelium (colonocytes). Butyric acid ("butyrate" when in salt form) is an important SCFA for this reason. BA also supports the maintenance of bifidobacterium species in the large intestine.

Full Spectrum Digest (ARG)
Full spectrum, vegan, clinical strength digestive enzyme with the ability to degrade casein, whey, soy, gluten and gliadin. Provides, per capsule, Glutalytic® (endo & exopeptidase) 189 mg, Protease 75,000 HUT, Aspergillopepsin 500 SAPU, Protease DPP IV 125 DPP IV, Amylase 15,000 DU 125 mg, Lactase 4500 ALU 60 mg, Lipase 2500 FIP 11 mg, Alpha-Galactosidase 150 GalU 6 mg. The Glutalytic® provides a special Exo & Endopeptidase blend – the Exo digests terminal peptide bonds to release amino acids and the Endo digests internal peptide bonds. Only to be taken with food.

Although more indicated for the large intestine, I find this product is a useful supplement for helping to heal the small intestines and correct altered intestinal permeability. It also helps to reduce ammonia, support commensal bacterial growth and encourages bile flow, and has in my practice been a contributory factor to reducing 'brain fog' caused by GI issues.

I.A.G. (BRC) powder
"IAG" is Biotics Research trade name for Larch Arabinogalactan. IAG is a highly refined purified powder containing 98 to 99 percent pure arabinogalactans from western larch tree. IAG acts an effective prebiotic.

I.P.S. Caps (BRC)
Provides L-glutamine, glucosamine, gamma oryzanol, glutathione, lamb intestine concentrate with epithelial growth factor, & Tillandsia which contains many vitamins, minerals and other compounds such as coumarin and resins that support healthy intestinal mucosa.

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 supports nervous system functioning.

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
The detail of the case history leads to the ability to implement well informed and considered judgements for clients, especially when used in the context of an hour's conversation and meeting with the client. Without this, it would appear to be inevitable that lab tests (stool tests and food reactivity tests) would need to have been conducted.

The literature relevant to this case report
There is emerging literature, which was referred to at the start of this Case Report, which highlights the possible mechanisms for abdominal bloating. This, combined with experience and combined with careful and individualised assessment offer the most realistic opportunities for making the most robust & effective recommendations.

The rationale for your conclusions
The combination of the written questionnaires and the story of E.R. led me to make what might be quite regular recommendations; an elimination diet and digestive support supplements. It was the relatively rapid and then complete resolution of her bloating that was a surprise, and a very pleasant one for both of us.

The main findings of this case report: What are the take-away messages?
Detail, detail, detail. I have calculated that there were over 450 individual pieces of information provided by E.R. and in addition to this we had a useful discussion. The outcome that E.R. experienced confirms the very real inflammatory response to gluten that can occur even with a relatively minimal but regular intake of gluten. It also highlights, in my opinion, the kind of life events that can led to a loss of tolerance to gluten, namely pregnancy and breast-feeding.

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.

E.R. could barely contain her delight at the resolution of her bloating. She not only wanted me to feel her now-soft-belly but everyone she knew, it seemed. We enjoyed a laugh about this. She had been so used to resting her hand on a hard, swollen belly, and now it was so much less distended and soft. She now looks forward to losing weight and restoring all aspects of her 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. E.R. 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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