The many faces of intolerance: Histamine, lactose, fructose

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Intolerances (lat. intolerantia, from tolerare "endure", "tolerate") are a causally diverse group of metabolic diseases which occur due to inadequate processing of supplied or released substances. The cause is often an enzyme defect or deficiency. With food intolerances, the body is not able to process certain substances and/or absorb them. Because they operate without participation of the immune system, they are also referred to as pseudoallergies.

Intolerances can cause many different and, to some extent, very considerable symptoms.

These include vague abdominal pain, flatulence, failure to thrive, headache and joint pain but also hyperactivity, concentration disorders, fine motor dysfunction or outbursts of aggression, problems at school, as well as respiratory and skin problems, e.g. neurodermatitis. These conditions can often exist for years without it being possible to identify a cause.

These problems are often a result of allergies or intolerances.

Today I would like to limit myself to the following three important intolerances:

- Histamine intolerance (HIT)
- Lactose intolerance (LIT)
- Fructose intolerance (FIT)

1. Histamine intolerance

Histamine intolerance is a clinical picture with many faces: it can be the cause of very different chronic complaints whereby it is often not identified as such. An odyssey of doctor's visits over many years lies in store for those affected, without a correct diagnosis being made.

They then hear comments from the doctors treating them such as "the disease is psychological in nature", "nothing can be done to help" or even incorrect diagnoses such as "the symptoms point to an iron deficiency" or "your diarrhoea is caused by parasites". Understandably, ongoing uncertainty and ineffective treatment attempts are frustrating for the patients. But which diagnostic possibilities are available to the therapists when it comes to the multi-faceted issue of histamine intolerance, and which treatment models promise relief?

According to the literature, approximately 1-3 % of the population suffer from a histamine intolerance, but it is presumed that the actual figure is 5-8 %, of which 80 % are women.

Histamine intolerance (HIT) manifests itself through allergy-like reactions which are not IgE-mediated but are merely based on an excessive concentration of histamine in the body.

Tab. 1: Possible symptoms of a histamine intolerance

Skin	Reddening, flushing, itching, hives
Respiratory tract	Runny nose, nasal obstruction, breathlessness
Cardiovascular	Hypotension, tachycardia, arrhythmia
Genitourinary system	Dysmenorrhea, cystitis, pollakiuria
Central nervous system	Headache, dizziness, migraine
Gastrointestinal tract	Nausea, vomiting, stomach ache, flatulence, diarrhoea

Histamine: a versatile natural substance

Histamine is a biogenic amine which is synthesised from the amino acid histadine. It was first pharmacologically described in 1910 as an endogenous substance. As a natural substance, histamine is also - amongst other things - a product of bacteria. This plays a role in foodstuffs that undergo a ripening process through bacteria. However, histamine is also made by the body itself by means of the enzyme histadine decarboxylase in mast cells, basophils, platelets and in some nerve cells.

Tab. 2: Histamine is a mediator of numerous biological reactions

• Histamine [...] serves as an allergy trigger, for example rhinitis allergica, hives
• serves as a neurotransmitter in the CNS, e.g. regulates the sleep-wake cycle
• is responsible for appetite control, regulates the production of stomach acid in the gastrointestinal tract
• is involved in the defence against foreign substances
• is involved in the process of vascular dilation
• is involved in the contracture of the smooth muscles of the uterus

Causes and forms of histamine intolerance

In the case of HIT, it seems to involve an acquired cluster of symptoms for which the production of diaminoxidase (DAO) is reduced due to inflammatory diseases, or the DAO activity is restricted due to external influences such as alcohol or medication. However, genetic backgrounds are also increasingly being discussed. In principle, there are two forms of HIT to distinguish between: the **acute** and **chronic** form.

For the acute form (type DAO), the extracellular route of degradation is reduced due to impairment of the histamine-degrading enzyme diaminoxidase (DAO).

For the chronic form (type HNMT), impairment of the histamine N-methyltransferase is present, which breaks down histamine intracellularly (above all in the liver).

Several gene variants of each of these two enzymes are known, so there are also hybrid forms. Both forms differ in intensity and temporal development, as well as in the type of symptoms. Both forms also result in the individual histamine thresholds being exceeded. At the same time, the exhibiting of symptoms is always dependent on the

concentration of histamine in the body which is furthermore determined by: the histamine formed in the body itself, exogenous histamine from foodstuffs, as well histamine released from mast cells due to medicines and pharmaceuticals.

Tab. 3: Histamine-rich and histamine-releasing foodstuffs

Histamine-rich foodstuffs		**Histamine-releasing foodstuffs**	
Tuna	Smoked ham	Strawberries	Pork
Mackerel	Spinach	Citrus fruits	Fish
Herring	Sauerkraut	Pineapple	Shellfish
Sardines	Aubergine	Papaya	Egg whites
Emmental	Ketchup	Tomatoes	Spices
Cheddar	Red wine vinegar	Spinach	Nuts
Gouda	Red and white wine	Chocolate	
Parmesan	Beer	Liquorice	

Tab. 4: DAO-inhibiting medicines

Substance class	**Active ingredients**
X-ray contrast medium	-
Muscle relaxants	Pancuronium, alcuronium, d-turbocurarine
Narcotics	Thiopental
Analgesics	Morphine, pethidine, NSAR, metamizole
Local anaesthetics	Prilocaine
Antihypotonics	Dobutamine
Antihypertensives	Verapamil, alprenolol, dihydralazine
Antiarrhythmics	Propafenone
Diuretics	Amiloride
Mobility-affecting agents	Metoclopramide
Antibiotics	Cefuroxime, cefotiam, isonlazid, pentamidine, clavulanic acid, chloroquine
Mucolytics	Acetylcysteine, ambroxol
Broncholytics	Aminophylline
H2-receptor antagonists	Cimitidine
Cytostatics	Cyclophosphamide
Anti-depressants	Amitriptyline

Diagnosis

For patients with the aforementioned symptoms, a tiered approach for their assessment has been proven. As a first step, alongside a detailed medical history and investigation, we carry out testing at our naturopathic practice by means of a Bicom 2000 with Biotensor (Regumed GmbH). For this, we place a histamine ampoule in the input cup. This is why a very good diagnosis with a high rate of accuracy is possible. Furthermore, a so-called baseline test via Multisoft is carried out, which we have composed ourselves with approx. 150 allergens. A second step is to measure the concentration of

histamine in the patients' stool samples which should be below 600ng/g. In this instance, close collaboration with the Institute for Micro-ecology in Herborn has always proved successful. Thirdly, the activity of the DAO in the blood can be measured, for which the normal range extends from 9-23 U/ml. A fourth possibility also exists in the evidence of histamine-forming microorganisms in the stool, whereby we have recently been limiting ourself to tensor testing above all. To test the validity of the individual methods, I carried out a practical investigation in 2011.

During the period of July to December 2011, 20 patients were examined and treated at my practice, of which 17 women and 3 men with a HIT. The average age was 43.88 years, with the youngest patient being 10.75 years and the oldest 69.66 years. The interview sessions featured a colourful array of symptoms. The primary focus was on complaints of the gastrointestinal tract with abdominal pain, nausea, meteorism, feeling of fullness and diarrhoea, followed by cardiovascular symptoms and headaches. The purpose of the investigation was to find out whether we could help patients to improve their symptoms by means of bioresonance therapy. In addition, the safety of the diagnostic methods, such as the determination of histamine in the stool DAO in the blood, were to be investigated.

Results

Testing by means of Biotensor and Bicom 2000 (test programme 170 with the histamine ampoule in the input cup) turned out to be the easiest, quickest and best diagnostic method. For the determination of histamine in the stool, we were only able to find an increase in the histamine level above 600ng/g amongst 9 patients (45 %). For 10 patients (50 %), the level was normal and one patient did not provide enough test matter. For the determination of the DAO concentration in the blood, a normal value (9-23 U/ml) was present amongst 13 patients (65%) and for 7 patients (35 %), the value was low.

After diagnosis – whereby, incidentally, many of the patients were very symptoms – a histamine-free diet was prescribed, and bioresonance therapy was commenced.

For 18 patients (95%), treatment with the "long-term" therapy took place immediately, i.e. four treatments, each at an interval of one week, whereby the basic programme according to the conductance value (BP), programme 970 (toxin removal), as well as an alternating allergy programme were used.

Tab. 5: Overview of the programmes used

1. Week: BP, 970, 944	4. Week: BP, 970, 998
2. Week: BP, 970, 998	5. Week: Secondary testing
3. Week: BP, 970, 945	

For two patients who had extreme symptoms and time restraints, we carried out two acute treatments in advance during the period of one week (1 day: BP, 970, 963, 944, 998; 2.day: 977, 977). Three weeks later, the "long-term" treatment took place – therapy as described above. Parallel to this, 16 patient also received an anti-homotoxic

therapy by intravenous drip (8-10 times). For the other four patients, detoxification via lymphomyosot tablets took place. Because a generally significant disturbance of the intestinal flora was still present for 18 patients (90 %), they also received another microbiological therapy with Symbioflor® and SymbioLact® over a period of 3-4 months. For all 20 participants, we were able to diagnose other allergies. The IgE was only elevated for 5 patients (25 %). A total of 11 affected patients therefore also received acupuncture treatments as an additional therapy method.

Following completion of the bioresonance therapy, and after a negative test result during secondary testing, a survey took place according to the following criteria: freedom from symptoms, significant improvement, slight improvement, no change/status idem, deterioration.

Freedom from symptoms was achieved amongst 3 patients (15 %), for 14 patients (70 %) there was significant improvement, meaning that for a total of 17 patients (85 %), an excellent result could be observed.

For 3 of the people affected (15 %) who had a very complex array of symptoms, a slight improvement was noticed. Nobody specified "status idem" or "deterioration". As a follow-up, repeat questioning took place for 15 patients after one year: 6 test subjects (40 %) were now symptom free and 9 (60 %) declared a significant improvement, indicating that all participants were very satisfied considering that all of them now eat normally. During secondary testing by means of a BRT-device, all patients were HIT negative.

Treatment

As an important fundamental measure, the histamine intake from food should be restricted, at least until the end of the therapy. The patient must therefore be informed with regards the histamine content of various foodstuffs (see Table 3). Furthermore, histamine-releasing medicines and alcohol should be avoided, above all red wine and champagne. Actual treatment according to the aforementioned procedure with bioresonance therapy can now begin.

Because, according to experience, a dysbiosis of the intestine is present for the majority of patients, an accompanying microbiological therapy to supply the missing bacteria is essential. Lactic acid bacteria acidify the intestinal environment thereby increasing the activity of the DAO. In practice, I also attach great value to an anti-homotoxic detoxification treatment by means of intravenous drip. Acupuncture has also proved successful as a further additional measure. In acute cases, antihistamines or mast cell stabilisers such as cromoglicic acid or diaminoxidase substitution preparations can be used.

In recent years, this multimodal treatment concept has proved successful at our naturopathic practice amongst over 250 patients with HIT.

2. Lactose intolerance

Approximately half of the world's population suffers from a lactose intolerance, with there being considerable regional differences. In Asia it is around 80-100% of the population, whereas 20-25 % of people are affected in Central Europe. In Germany, around 12 million people are affected.

This illness is not a direct intolerance but rather the enzyme lactase, which splits lactose into D-galactose and D-glucose, is missing. The lactose particles slide further into the large intestine where they feed gas-producing bacteria, resulting in the majority of symptoms.

Tab. 6: Symptoms of lactose intolerance

Feeling of fullness	Diarrhoea
Flatulence	Nausea
Bowel spasms	Vomiting
Restlessness	Sleep disturbances

Forms:

There are two forms of lactose intolerance:

a) primary lactose deficiency (genetically determined)
b) secondary lactose deficiency in the event of chronic inflammatory bowel diseases

Diagnosis:

Diagnosis takes place by means of a medical history, a H2-breath test, a lactose resorption test or genetic testing. However the quickest, easiest and least complicated method is using the Biotensor test on the bioresonance device. We use the Bicom 2000.

Treatment:

In terms of conservative medicine, causal therapy is not possible, leaving only lifelong abstention or the administration of lactase tablets.

We as Bicom therapists have the opportunity to help our patients very quickly and across their lifetime by means of the treatment scheme already described (4 treatments once a week), alongside additional natural healing processes such as microbiological therapy (colonic irrigation) and acupuncture.

We therefore already have very good level of experience and have been able to help numerous (309) patients who nearly all lead a symptom-free life with a normal diet, representing an unbelievable improvement in quality of life.

3. Fructose intolerance

The most common food intolerance in Germany is fructose intolerance.

It is estimated that one in three Germans, perhaps even one in two, has a problem with the digestion of fructose.

And yet we always recommend our patients to eat fresh fruit and vegetables, ideally several times a day, thereby disregarding the aforementioned problem.

This results in complaints of this nature, or of a similar nature:

Symptoms

Stomach ache, nausea, flatulence, alternating diarrhoea and constipation – typical symptoms of irritable bowel syndrome.

Headache, muscle and joint pains, dizziness, pollakiuria, fatigue and exhaustion, as well as depression, can also be present.

Cause

The cause includes a lack of the transport protein GLUT 5, meaning that the small intestine cannot make use of the fructose and it is therefore "pushed" into the large intestine.

Here, it is metabolised by the intestinal bacterial into short-chain fatty acids and gas – (CO_2, hydrogen and methane), which leads to the symptoms described.

The amino acid tryptophan likes to bind with fructose, causing it to be increasingly excreted. It is then lacking for serotonin production.

The consequence is a declining serotonin level with hunger pangs, sugar cravings, right through to obvious depression. The folic acid and zinc values in the blood decrease and the blood pressure rises.

A second form of fructose intolerance is the hereditary form, in which an enzyme deficiency (aldolase B) is present. Fructose can in fact enter the cells but cannot leave them. It accumulates in the cells leading to toxic damage to the metabolism of glucose (glycolysis, gluconeogenesis) with the consequences being hypoglycaemia with restlessness or craving attacks, reduced brain capacity and aggression, right through to seizures or shock.

Diagnosis

Diagnosis takes place by means of the

- H2-breath test
- Determination of fructose plasma level
- Adolase B – determination of level in blood
- Genetic testing
- Bioresonance testing

Treatment

The following is considered the therapeutic standard in conventional medicine:

- strict omission diet lasting several years
- no intake of sorbitol, xylitol, tropical fruits, honey or ready-made products

- re-familiarisation after many years of no symptoms

Also in this instance, we as Bicom therapists are able to provide relief following the methods already described, enabling a symptom-free life.

I would also like to refer to gluten – intolerance (celiac disease), but cannot go into further detail due to lack of time. The same procedure also applies here for diagnosis and treatment, often with sensational success.

Additives and flavourings also represent a vast topic of discussion, where painstaking detective work is often necessary, in terms of looking for the famous needle in the haystack, in order to be able to help patients in the long-term.

Many thanks!

Vasculitis – new findings and therapy options

Irene Kolbe, Naturopath

1. Introduction

Dear colleagues, dear management, dear Mr Sinn and all of the REGUMED employees,

When I got the request to do another speech this year, I was keen to introduce to you a small sensation from the latest findings on the topic of vasculitis, that originated in a very different area of medicine and brought attention to the work of complementary medicine in January 2017.

2. Prof. Haverich's research work

"A new theory on arteriosclerosis challenges the current doctrine." So began a headline of a daily newspaper published in Hanover and of the BDH newsletter.

The article was based on a study conducted by Prof. Dr. Axe Haverich from the Medical University of Hanover (MUH department: HTTG surgery). Here is an excerpt from the study, Prof. Haverich:

"It is not fats from the blood, but disruptions in the supply to the arterial wall, that lead to deposits in the inner vascular wall and trigger arterial calcification."

The doctrine, believed for decades, was based on the idea that sclerosis of the arteries such as, for example, the coronary vessels, was due to fats from the blood accumulating on the internal wall of the blood vessels. As a reaction, the immune system builds up so-called plaque in this area, which can move to the vessel with time.

Professor Dr. Haverich, however, presents a very different theory: *"The fat deposits do not come from the blood, but rather from the remains of the dead cells of the vessel wall."*

Therefore, he contradicts the present opinion on the cause of arteriosclerosis being rooted in syndromes affecting metabolic well-being.

An infarction of the arterial wall?

Arteries also need to supply the walls of their vessels with oxygen and nutrients. This happens through tiny supply blood vessels in the exterior wall of the artery, the so-called vasa vasorum. If these shut, the cells die, mainly in the middle wall layer: this leads to an infarction of the artery wall.

The most common trigger of such closures are inflammation reactions that arise through **viruses, bacteria and particulates**, but also through harmful fat particles.

"The dead cells, including the fat residues, are broken down by the immune system. Through the repair processes with the inflammation factors (dolor, calor, tumor, rubor and functio laesa) by the immune system, the so-called plaque forms, which leads to a

