Chronic Hypoglycemia - a Common, Often Unrecognised, Metabolic Disorder

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Introduction

- Does your child suffer from attention disorders, above all before meals? Is he/she often spiteful and bad-tempered, and does the teacher complain that his/her performance is very inconsistent?
- Is your child's build rather 'podgy', lacking in tone or even hypotonic?
- Do you as an adult experience tremendous cravings for food and sometimes absolutely have to eat?
- Are you someone who puts on weight even when you really eat very little?
- Do you have a tendency towards obesity or else sometimes unexplained feelings of weakness?
- Do you like carbohydrates such as pasta, potatoes, sweet foods a lot, even though you often feel tired after eating them?
- Do you tend to have feelings of weakness, lose consciousness or feel dizzy?
- Does fasting suit you but only after a few days?
- Does your heart race or does everything go dark sometimes?
- Do you suffer from nervousness, irritability, shivering and anxiety?
- Do you tend to have low blood pressure and rather low body temperatures?

If you do, consider whether you might have a tendency to hypoglycemia or constitutional hyperinsulinemia! It is usually easy to diagnose and also to treat, even though the tendency to hyperinsulinemic hypoglycemia can be only partially modified.

Whilst high blood pressure and diabetes mellitus are extremely well known and also always looked for, chronic hypoglycemia is an almost totally unknown disease, even though it is almost as common and can cause the patient severe metabolic problems in the long term, which are often only apparent in poor or inconsistent mental performance but can severely inhibit the sufferer.

A tendency to hypoglycemia is usually present from childhood. However, with advancing age, patients who were previously hypoglycemic often suffer the diabetes of old age, as if the decades of excessive insulin production have turned into a weakness of the islet cell system.

Simple biochemistry: human cells need glucose (= grape sugar) to obtain energy. This is created in the intestine through the splitting of the higher molecule carbohydrates, polysaccharide and disaccharide, into monosaccharides. These are then absorbed from the small intestine and leached into the blood.

The subsequent utilization of the sugar (glucose) in the cells is a process dependent on the pancreatic hormone insulin. The more insulin there is present, the faster the sugar seeps into the cells and the blood glucose level drops.

The cell itself does not process the sugar sufficiently fast for the large quantity absorbed and therefore starts an alternative metabolic process of glucose utilization – **lipogenesis**, in other words fat formation. In addition, inside the cell, the sugar is broken down by fermentation, which leads to local acid production and „over-acidification".

The hypoglycemic patient with an excessive insulin response therefore almost always has raised lipogenesis. Their main symptoms, however, derive from the excessively low blood sugar levels, which arise one or more hours after the intake of food (Figure 1).

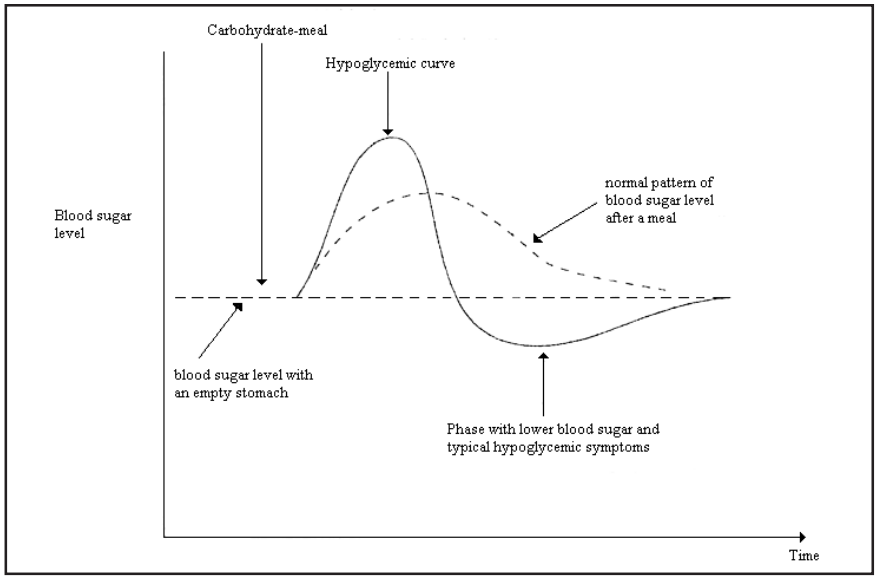

Fig. 1: Blood sugar level of hypoglycemic patient after carbohydrate-meal

Two other possible causes of hypoglycemic metabolic disorder may lie in increased adrenal activity, when the body (adrenal cortex) produces excessive cortisol. There too, the raised insulin level is often to be seen as the response.

However, the main causes of hypoglycemia are
- first of all, malnutrition
- secondly, increased permeability of the intestine
- thirdly, a trace element deficiency!

Malnutrition
Short chain carbohydrates, such as sugar and sweet foods, but also for example white rice or flour products, are absorbed in the upper tract of the small intestine, sometimes even in the stomach, and are quickly deposited in the blood, so that excessive insulin production occurs, controlled by the hypothalamus. The result is a secondary drop in the blood sugar level.

If the sugar level in the blood drops too low, adrenalin and glucocorticoids are formed as a compensation mechanism, which charge the liver and release stored carbohydrate (glycogen). The circle is thus closed and even more insulin is produced!

Permeability of the intestine („leaky gut syndrome“)
The increased permeability of the intestine is due to chemical damage to the mucous membrane of the intestine where there is the wrong intestinal flora or too many preserved foods are being consumed.

Another very common cause is food allergy, most commonly an allergy to dairy products. This leads to atrophy of the intestinal mucous membrane and hence, its permeability.

For diagnosis thermoregulation diagnostic methods and vega testing are used to find food allergies, more recently also IgC tests for foods (from Ortho-Analytik).

It is easy to build up the intestinal mucous membrane using Sanum and Burgstein remedies:
- Notakehl 5X tablets, 3x daily 1 tablet for one week
- then Fortakehl 5X tablets, 1 tablet daily for two weeks
- then one Mucokehl 5X tablet in the morning and one Nigersan 5X tablet in the evening for several months
- throughout the whole period Recarcin 6X capsules and Utilin 6X capsules, one of each per week
- one tablet of Burgerstein Molybdenum per day

Dietary:
- rice gruel daily, no wheat products and no dairy products
- finely grated raw food, well chewed (cellulose builds up the intestinal bacteria)

A well-known but rarer form of postprandial (= occurring after meals) hypoglycemia is the so-called dumping syndrome in people who have undergone stomach surgery, where the carbohydrates from the meal reach the small intestine and are absorbed there too quickly because of gastric malfunction. This phenomenon can

Nutrition tips for hypoglycemic patients:

- no sugar and no foods containing sugar
- no sweet drinks
- only the smallest quantities of alcohol allowed
- avoid coffee (adrenal-like effect)
- very few white flour products

The following are important:

- plenty of fresh vegetables, raw food, vegetable sprouts and shoots
- seeds, nuts
- whole grains such as oats, porridge, spelt, barley etc.
- raw vegetables as snacks between meals (carrots, organic fennel, avocado etc.)
- alkaline soup to drink during the day (Figure 2)
- potatoes
- salads with good vegetable oils (olive oil, grapeseed oil, sunflower oil etc.)
- fruits in the form of non-sulphur-treated dried fruit, as snacks
- eggs allowed / meat very sparingly / fish once or twice a week

All these foods maintain the blood sugar balance and avoid heavy insulin surges.

be remedied with small meals, avoidance of sugar and pasta and drinking large quantities of water.

The Paracelsus alkaline soup is a good supplement to the intestinal therapy.

Trace element deficiency:
The breaking down of glucose requires chromium, manganese, zinc and magnesium. In order to be able to convert glucose to glycogens, in other words to build up stores of carbohydrates, the body requires phosphate, potassium and calcium. Glutamine is important as an amino acid. High levels of copper are counter-productive.

The following regime has proven very beneficial in the treatment of trace element deficiency in hypoglycemia:
- 2 x 10mg manganese
- 2 x 15mg zinc
- 2x daily glucose tolerance factor (organically bound chromium)
- also a multivitamin formula such as e.g. the CELA multivitamin and mineral supplement from Burgerstein, 2x1 tablet daily; this preparation should not contain copper.
- alkaline remedy recommended: Alkala N, 1 measuring spoon in hot water, twice daily.

Diagnosis of food-related hypoglycemia:

1) **Hair mineral analysis** (HMA): On the one hand, this reveals any deficiency in hard-to-absorb trace elements: zinc, above all

The Paracelsus alkaline soup according to Dr. med. Thomas Rau

Dr. Rau's alkaline soup is a strongly alkaline-loaded soup, very rich in minerals and particularly suitable for the start of an alkaline diet or fast by Dr. Rau's method, in conjunction with the correction of dietary faults and the accompanying measures in any restorative cure.
It provides the body with a surfeit of alkaline foods, and with raw egg yolk added, it also supplies high grade fat components, which the body requires for hormone synthesis, among other things adrenalin synthesis, which is very important in exhaustion and in convalescence.
This is why this soup, when 3-5 dl are taken every morning, produces an extraordinary stimulating effect, de-acidifies and helps to improve the circadian rhythm, which is often severely disrupted in conditions of adrenalin exhaustion.

Preparation: (finely chop the vegetables)
- *Celeriac/celery*
- *Green beans, fresh or frozen, not canned because of the preservatives and sugar,*
- *Courgettes.*
  Always chop this vegetable evenly and moderately finely, in plentiful quantities, so that it „leaches out" well in the decoction.
- *Instead of beans you can also use lentils, which gives it more protein, or one can add potatoes. Do not add any other vegetables!*

Prepare a decoction, leave it to simmer for about 15-20 minutes. Then strain off the vegetables, which might otherwise acidify or ferment.
If necessary you can add some NAHRIN stock (vegetable). No meat stock, no salt.

You can add a raw egg yolk to this bland but very nutritious decoction but only when the mixture is at about 30-50 degrees, so as not to denature the valuable components of the egg yolk. (One egg yolk per person or per large soup bowl). For the purposes of a hypoallergenic diet, do not use hens eggs but quails eggs.

The soup should be eaten the same day and no later than the next day. Try it, you will be amazed at its revitalizing power. It is best not to drink any coffee if you take the soup in the morning.
(If you are not eating the soup in conjunction with a fast, you can also eat a small quantity of the vegetables in the evening after you have prepared them, for your evening meal).

manganese and often also molybdenum. Low chromium is almost pathognomonic in the diagnosis of hypoglycemia! On the other hand, the excess acidification, which is always present in hypoglycemia leads to calcium and potassium leaking out of the depot, which raises the levels of calcium and magnesium in the HMA.

2) **Blood sugar and insulin testing after ingestion of glucose** (50g glucose in 200ml water):
1-3 hours after taking glucose, the blood sugar level is too low, the insulin levels are often too high and remain so, even when the blood sugar level is once again low (see Fig. 1).

3) **Major stool check** (ortho-analysis):
this reveals miscolonization and also very frequently, a reduction in the normal intestinal flora Bifidus and Bacteroides, but also signs of atrophy of the small intestine.

4) **Special serum tests:**
zinc usually low, Vitamin B6 also tends to be low. Histamine values only raised in food allergies. A low spermine level in the serum is also believed to be fairly typical – when it can even be tested in the laboratory.

Summary

- Hypoglycemia is usually food-related and can generally be improved with a consistent change in eating habits!
- Hypoglycemia is very common and usually associated with neurological, metabolic and psychological symptoms.
- Where there is clinical suspicion of hypoglycemia, change of diet, zinc, vitamin B complex, manganese and chromium supplements constitute a very beneficial treatment and produce a clear improvement after about 6-8 weeks.

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