Individualized Infusion Therapy in Metabolic Syndrome

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Metabolic syndrome is a multifactorial problem. A paradigm shift is required in order to understand the metabolic processes involved and treat our patients with metabolic syndrome holistically. The old glucose-centered view no longer reflects the reality of well-researched metabolic processes.

In metabolic syndrome, late damage is due to deposition of the following homotoxins:

- glucose
- free oxygen radicals
- sorbitol
- advanced glycation end products
- inflammatory mediators

In metabolic syndrome, the pathological cascade is initiated by the triad of visceral adiposity with associated dyslipidemia, hyperglycemia with beta-cell dysfunction, and insulin resistance. As the pathology progresses, we see increased free radical formation, reduced bioavailability of NO, release of inflammatory cytokines, and accumulation of toxins in the matrix. The end results of this pathophysiological interaction are endothelial dysfunction with micro- and macrocirculatory disturbances and diabetic polyneuropathy. The toxic byproducts of this pathological cascade constitute homotoxins in the sense of modern homeopathy and Hans-Heinrich Reckeweg's theory of disease. The effects of homotoxins are first felt in the early stages of glucose intolerance, even before metabolic syndrome is diagnosed. Elevated glucose levels lead to four pathological "pathways":

1. the polyol pathway: sorbitol develops and accumulates around nerve endings
2. the auto-oxidation pathway: advanced glycation end products develop
3. the protein kinase pathway: inflammatory mediators such as NF-κB und TNF-α are expressed
4. the free radical pathway: reduction of NO occurs

The antihomotoxic therapeutic approach is to reduce the damaging effects of homotoxins. According to Reckeweg's six-phase table, in diabetes deposition of homotoxins occurs first, followed later by impregnation and degeneration accompanied by the characteristic late damage.

In planning infusion therapy for prophylaxis and treatment of metabolic syndrome and its late damage, the following questions should be considered:

- Which toxins are present?
- What is the patient's phase on the six-phase table?
- What is the patient's clinical status?

In some cases, extensive lab tests may also be helpful. For example, knowing the patient's homocysteine level and free radical loads (e.g., lipid peroxidase) can be valuable.

Intravenous therapy is an important component of treatment in many acute and chronic diseases, especially in cases of metabolic syndrome.

Treatment concept

I recommend twice-yearly infusion therapy for my patients – ideally, twice-weekly infusions (to a total of ten) each spring and fall. Lymphomyosot is the basic medication. Its constituents act on four different levels: on the lymphatic, respiratory, and digestive systems and on the urinary tract. Infusion therapy should be preceded by approximately two weeks of oral treatment with Lymphomyosot at the standard dosage of 1 tablet 3 times a day or 15 drops 3 times a day. In multimorbid or severely debilitated patients, better tolerance is achieved by reducing the dosage to 8 to 10 drops 3 times a day.

In patients with metabolic syndrome, both visceral adipose tissue and the interaction of free radicals and advanced glycation end products contribute to metabolic inflammation (which can be corroborated by ultrasensitive CRP measurements, among other tests). To reduce inflammation, I often add Traumeel (antihomotoxic medicine's most important anti-inflammatory) to the infusions. As a component of the citric acid (Krebs) cycle, dl-malic acid has notable metabolism-stabilizing effects in metabolic syndrome.

Below are several examples of time-tested infusions with special emphases.[1] The products Coenzyme compositum and Ubichinon compositum are not registered for intravenous use in most countries and should therefore be administered either i.m. or s.c. after every infusion.

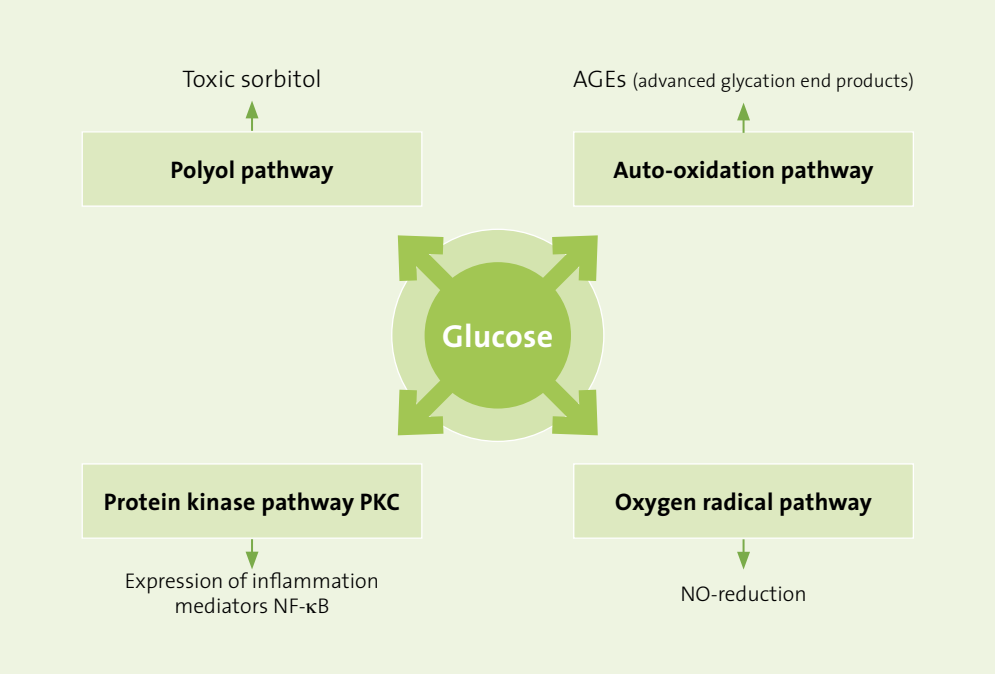

Figure 1: Pathological pathways triggered by elevated blood glucose levels

1 Please note that some of the medications listed may not be available for injection in a few countries. It is the practitioner's responsibility to use the medications as directed in the product information.

Infusion protocols in metabolic syndrome

Infusion for metabolic syndrome/obesity
- Graphites-Injeel (Ed. note: or Graphites-Homaccord)
- Hepar compositum
- Nux vomica-Injeel (Ed. note: or Nux vomica-Homaccord)
- Lymphomyosot
- Traumeel
- Acidum DL-malicum-Injeel

Infusion for metabolic syndrome with high blood pressure (adjuvant)
- Melilotus-Homaccord
- Rauwolfia compositum
- Arteria suis-Injeel
- Traumeel
- Lymphomyosot

Infusion for metabolic syndrome with pancreatic insufficiency
- Pankreas suis-Injeel
- Acidum DL-malicum-Injeel
- Momordica compositum
- Traumeel
- Lymphomyosot

Infusion for metabolic syndrome with mild to moderate circulatory disturbances
- Circulo-Injeel
- Placenta compositum
- Vertigoheel
- Traumeel
- Lymphomyosot
- Cerebrum compositum (in cerebral circulatory disturbances)

Infusion for metabolic syndrome with polyneuropathy
- Lymphomyosot
- Vitamin B_6
- Vitamin B_{12}
- Traumeel
- Vertigoheel
- Selenium
- Vitamin C (administered as a separate infusion)

Infusion for metabolic syndrome with hyperhomocysteinemia
- Vitamin B_6
- Vitamin B_{12}
- Folic acid
- Traumeel
- Vertigoheel
- Circulo-Injeel
- Cerebrum compositum (for cerebral circulatory disorders)

If the catalysts of the citric acid (Krebs) cycle are available, patients will derive great benefit (in the form of improved metabolism) from yearly or twice-yearly infusions of these catalysts (see case study on page 12 and the article on citric acid cycle catalysts on page 16 of this journal). Ideally, the catalyst infusions should be administered every two weeks and in alternation with any of the infusions listed above, to a total of three citric acid cycle infusions, after which the basic infusions can be continued without the interspersed catalyst infusions.

The patients' subjective wellbeing is greatly enhanced by these treatments, and objective signs such as blood pressure, blood sugar levels, and cholesterol levels also improve. For all of these reasons, patients usually return without being reminded for their next annual infusion series and recommend the infusions to relatives and friends.