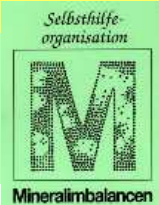


Magnesium deficiency affects diabetes: a case report

D.-H.Liebscher (Berlin), D.-E.Liebscher (Potsdam)

Selbsthilfeorganisation Mineralimbancen (Berlin), <http://www.magnesiumhilfe.de/>



The case

In 1997, an elderly woman (age 83 years) that belongs to a family suffering from magnesium-deficiency tetany was hospitalized during a strong infect. In spite of the stress, she did not get magnesium because of the so-called *normal magnesium serum value*. The diagnoses were bronchitis, hypertension, diabetes mellitus type II, the therapy was chosen correspondingly. After hospital, she started as an outpatient the magnesium therapy again (900–1200 mg Mg per diem). The other drugs were minimized. In 2001, she does not need any therapeutics with the only exception of magnesium. Former adverse reactions of antihypertensiva (oedema) and antidiabetics (short mental absences) disappeared.

1. It is known that magnesium is needed for insulin synthesis and secretion.¹

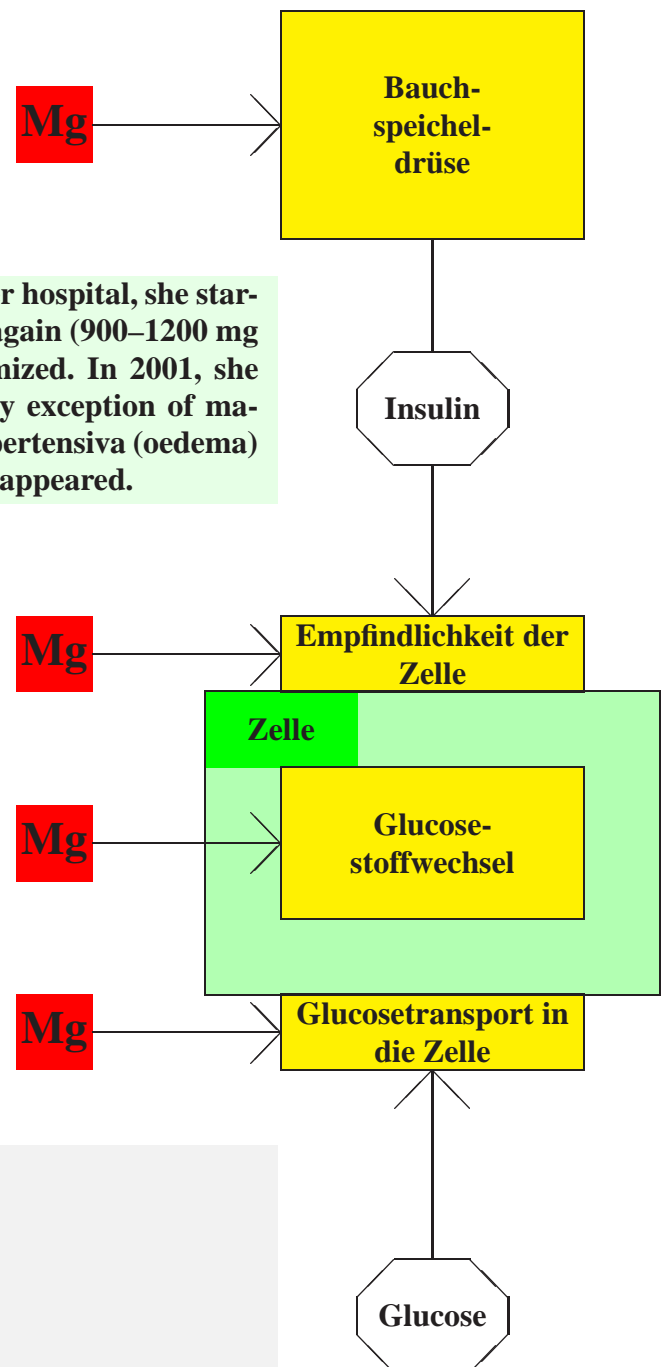
2. It is known that the insulin sensitivity of cells depends on the presence of magnesium.²

3. The transport of glucose into the cells depends on enzymes that use magnesium.³

4. The key enzymes in the glucose metabolism of the cells depend on Magnesium.⁴

Consequently, in stress situations the glucose level will be high when magnesium is deficient. High glucose levels can indicate magnesium deficiency and magnesium therapy has to be tested, in particular if there are other hints to magnesium deficiency.

5. It is known that for the serum value, *two* critical values exist. The first which is lower and less interesting decides whether magnesium should be substituted even without characteristic symptoms. The second which is less known but much more important decides whether magnesium must be substituted in the case of characteristic symptoms. *This value is expected to be 0.9 mmol/l.*⁵



- [1] Literatur zur Insulinproduktion
- [2] Literatur zur Insulinempfindlichkeit
- [3] Literatur zum Glucoseeintrag
- [4] Literatur zum Glucosemetabolismus
- [5] Hinweis auf unsere vorigen Poster