Phosphatidylcholine

Phosphatidylcholine for Prevention and Therapy of Inflammatory Intestinal Mucosa Disorders

The intestinal mucosa is a resorption barrier for nutrients and an imprinting zone of the mucosa associated immune system (MALT). Furthermore it is an important synthesis source for neuroendocrine transmitters. Disorders of this complex tissue structure therefore imply numerous organic consequences. Such disorders may be triggered by environmental pollution, inflammations or allergies and can be observed in practice quite often.
New studies presently let us hope to develop novel successful concepts for prevention and therapy of gastrointestinal barrier disorders.
Aside from adequate nutrition and stable microbial population the regeneration of the intestinal mucosa also depends on mineral, amino acid and lipid consumption. Healthy colon mucosa contains lecithin (phosphatidylcholine-PC) and PC plays an important role in the field of intestinal barrier functions.

To prevent inflammations by local bacterial flora, the colon mucosa has a firmly attached mucosa layer, which effectively inhibits direct contact of mucosa cells with toxins and bacteria. The phosphatidylcholine content –as main component of the intestinal mucus - regulates the viscosity and therefore is a major factor of the mucosal mucosa barrier. The initially loose mucosa is firmly attached after resorption of bile acids in the terminal ileum and continuously moves distally down the colon as protective film. Clinical studies showed that the phosphatidylcholine concentration in rectal mucus of patients with chronic inflammatory intestinal diseases, e.g. colitis ulcerosa patients is reduced by up to 70%. In the course of a study patients were treated with 6 g phosphatidylcholine or placebos for three months. In this process significant remission could be observed in persons under phosphatidylcholine therapy compared to those in the placebo group. In case of severe chronic inflammatory processes of colitis ulcerosa significant reductions of the required cortisol dosage could be achieved by additionally giving PC. Further in-vitro studies proved the anti-inflammatory effect of PC. The substance was also recommended for application in case of irritable colon and gastro-intestinal permeability disorders.

The present study situation leads to the assumption that phosphatidylcholine will be a new natural substance for secondary prevention of chronic inflammatory bowel diseases (CIBD) as well as for the therapy of gastro-intestinal barrier disorders. However, not only the dosage seems to be relevant for effectiveness of phosphatidylcholine. Lecithin is frequently obtained from chicken eggs or soya. These protein sources, however, often trigger inflammatory food intolerances. Hypoallergenic lecithin (=PC) therefore possibly offers significant advantages for clinical applications. Life Prevent (Salzburg) has introduced a hypoallergenic lecithin preparation on rapeseed oil basis and wants to review the above mentioned coherences in studies carried out in co-operation with the International Society of Applied Preventive Medicine (I-GAP). Should you be interested please contact our Custumer Service or the I-GAP office.

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