Reduces carcinogenic acetaldehyde in an acidic stomach.

For persons who have an acidic stomach or who use anti-acid medication.
Acetium capsules in a nutshell

Acetium is a CE marked product intended for use by persons who have little or no acid in the stomach. These persons include those who have atrophy of the gastric mucosa (atrophic gastritis) or who use medication inhibiting gastric acid secretion. The absence of acid allows the survival and reproduction of oral microbes in the stomach. These microbes are able to locally produce carcinogenic acetaldehyde either from glucose by fermentation or from alcohol by oxidation.

Acetaldehyde levels can be significantly reduced in the stomach by taking Acetium capsules just before drinking alcohol or after eating. The active ingredient in Acetium capsules is L-cysteine, a natural amino acid, which is slowly released to stomach contents from a capsule containing 100mg of L-cysteine. L-cysteine acts by binding, and thereby inactivating, acetaldehyde in the stomach.

Carcinogenic acetaldehyde in the stomach

The International Agency for Research on Cancer (IARC/WHO) has recently concluded that acetaldehyde derived from the alcoholic beverage itself or formed endogenously is carcinogenic to humans (Group 1)(1).

Acetaldehyde is processed from alcohol and/or sugars by some microbes representing normal oral flora. These microbes are swallowed into the stomach constantly. In a normal healthy stomach they are killed by gastric acid. But when the cells producing acid have disappeared due to atrophic gastritis of the corpus part of the stomach, or when the acid production is inhibited by anti-acid medication, the microbes will colonize the stomach. Microbial colonization and the consequent increase in stomach acetaldehyde levels following alcohol or sugar intake in persons with non-acidic stomach have been shown in human studies (2-4).

Anti-acid medication

There are different types of anti-acid medications e.g. H2-blockers and proton pump inhibitors (PPIs). They are generally used in gastroesophageal reflux disease and for upper abdominal discomfort and pain. For example, there were almost 0.5 million PPI users in Finland in 2007 (S), in a country with 5.3 million inhabitants. A similar prescription rate is true in many European countries and in the US. In the US, the best-selling PPI drug was prescribed over 30 million times in 2007 (6). Particularly long-term users of anti-acid medication could be protected against acetaldehyde by Acetium capsules.

Anacidic stomach (Atrophic gastritis)

Atrophic gastritis, loss of appropriate glands and function of the stomach mucosa, is caused by Helicobacter pylori (H. pylori) infection or autoimmune disorder. Atrophic gastritis, which most often is asymptomatic, can affect the entire stomach mucosa, corpus and antrum. The acid producing parietal glands are located in the upper part of the stomach, corpus. Atrophic gastritis results in diminution or lack of acid secretion.

The estimated number of people suffering from atrophic gastritis globally is as high as 500 million. Atrophic gastritis is a major risk factor for stomach cancer and it also increases the risk for esophageal cancer. Furthermore, it may result in the deficiency of vitamin B12, iron and calcium, which conditions often remain undiagnosed. So far atrophic gastritis has been diagnosed by gastroscopy and histological examination of biopsy specimens, but now it can be diagnosed reliably with a safe and cost-efficient blood test (GastroPanel® or GastroView®)(7-10).

References

(5) Lääkekorvauksia saaneiden potilaiden määrä ja korvattujen lääkkeiden kustannukset lääkeryhmässä. KELA, 2007. (in Finnish and English)

Acetium is a CE marked Medical Device, which will be launched during 2010. Acetium capsules are safe to use, and do not contain animal-derived ingredients, sugar, gluten, lactose or allergens.

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