Role of zinc in chronic gastritis - PubMed

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Abstract

Oxidative stress occurs in inflammation of gastric mucosa. The role of zinc in modulating oxidative stress has recently been recognized. Zn deficiency results in an increased sensitivity to oxidative stress and have a higher risk of musoca damage in inflammation. The aim of this study was to determine wheather chronic inflammation affects on the concentration of Zn2+ ions in gastric mucosa of patients with chronic gastritis. Forthy-three patients with chronic gastitis were enrolled. Patients were endoscoped. Histology and scoring of gastritis was performed following the guidelines of the updated Sydney system. Endoscopic finding of mucosa were scored according to a Lanza scoring system. The diagnosis of Helicobacter pylori (H. pylori) infection, histopathologic changes, intensity of inflammation and zinc concentration were determined from biopsies of gastric mucosa. The atomic absorption spectrophotometer was used to determine tissue concentrations of zinc. Twenty of 43 patients with chronic gastritis were uninfected by H. pylori. There was no statistically significant difference in tissue concentrations of zinc between H. pylori-positive and H. pylori-negative patients. From those infected patients 53.3% had chronic active gastritis. There was no statistically significant difference in tissue concentrations of zinc between patients with chronic active gastritis and patients with chronic inactive gastritis (p = 0.966). Zn in antrum showed positive correlation with density of H. pylori in antrum (Spearman' rho = 0.481, p = 0.020), negative correlation with density of H. pylori in corpus (Spearman' rho = -0.492, p = 0.017) and with zinc in corpus (Spearman' rho = 0.631, p =0.001). Tissue concentration of zinc was not affected by chronic inflammation of gastric mucosa in patients with chronic gastritis.

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MeSH terms

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