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Search

[ADVANCED](#)[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(200K\)\]](#) [\[References\]](#)**Analysis of mucin composition in gastric juices of chronic rheumatic patients with upper gastrointestinal damage**

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**ABSTRACT**

Assessment of the mucin subclasses in the gastric juices of severe chronic rheumatoid arthritis (RA) patients was compared with non-RA cases which received the eradication treatment of *Helicobacter pylori* (*H. pylori*). Gastric juice samples were obtained from 8 RA patients (5 for *H. pylori*-negative and 3 for *H. pylori*-positive) and 5 control subjects in which we confirmed the successful eradication of *H. pylori*. The gastric luminal mucins were extracted and isolated by the ethanol precipitation method. These mucin solutions were digested with chymotrypsin, dialyzed, lyophilized, and redissolved. The obtained specimen was applied to an ion exchange column containing DEAE-Sepharose CL-6B and eluted with a discontinuous salt gradient in three salt steps. The gastric luminal mucins were divided into three fractions based on the distinctive sialic acid content. The proportion of acidic mucin rich in sialic acid from the gastric juice of RA patients without the *H. pylori* infection was significantly lower than those RA patients with *H. pylori* or the control subjects. A decrease in the acidic mucin content after eradication of *H. pylori* was commonly observed in all the control subjects. Our investigation raises the possibility that the gastric mucosae of RA patients have resistance against *H. pylori* infection. And the analysis of the composition in the gastric luminal mucin may be a very useful tool for the evaluation of gastric homeostasis in RA patients.

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