
Original Article

HISTOLOGICAL ASPECTS AND FLOWCYTOMETRIC IMMUNOPHENOTYPING IN PATIENTS WITH CHRONIC GASTRITIS AND ANTIBODIES AGAINST HELICOBACTER PYLORI

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Abstract

Background. *Helicobacter Pylori* infection is frequently encountered in clinical practice in patients with upper digestive complaints. Chronic gastritis, diagnosed using endoscopy combined with histological examination of gastric mucosal fragments in *Helicobacter Pylori* positive patients, is a risk factor for gastric cancer development.

The aim of the study is to determine the histological changes of gastric mucosa in patients with antibodies anti HP and endoscopic diagnosed gastritis, and to assess the immune status of these patients using flow cytometric immunphenotyping of peripheral lymphocytes.

Material and methods. The cohort of patients was selected from the outpatients with dyspeptic symptoms, admitted to the Endoscopy Department of „Sfântul Ioan”, Emergency Hospital. The group consisted of 50 patients, with ages between 40 and 70 years and serologically positive for *Helicobacter Pylori* antibodies. The patients were examined on one hand endoscopically and on the other hand, in those cases with gastric lesions, the examination was completed with histology and immunphenotyping of peripheral lymphocytes using flow cytometry.

Results. The group consisted of 33 (66%) male patients and 17 (34%) female patients, HP positive at serological testing. It was divided into three age subgroups: one between 40-50 years with 25 patients (50%), other one between 50-60 years - 21 (42%) patients and another between 60-70 years 4 patients (8%). Upper digestive endoscopy was performed in these patients and in 17 subjects (34%) were identified gastric lesions, that were characterized into four different endoscopical types: eritematous gastritis, erosive gastritis, atrophic gastritis and biliary reflux gastritis. Histological examination of gastric samples from these patients confirmed gastritis only in 10

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patients (58%) from the 17 subjects found with macroscopic mucosal changes. All 17 patients with endoscopical changes suggestive for gastritis were sent for performing immunophenotyping of peripheral lymphocytes using monoclonal antibodies.

Conclusions. HP positive patients at serological testing who present chronic gastritis at upper digestive endoscopy, express an altered immune status as results from immunophenotyping of immune cells. The most common histological type of gastritis identified in the study group was eritematous gastritis.

Keywords: *Helicobacter pylori* - chronic gastritis - immunophenotyping - flow cytometry

Rezumat

Infecția cu *Helicobacter Pylori* (HP) este frecvent întâlnită în practică la pacienți cu afecțiuni digestive superioare. Gastrita cronică diagnosticată histologic pe fragmentele de mucoasă cu *Helicobacter Pylori* pozitiv recoltate endoscopic, reprezintă un factor de risc pentru cancer gastric.

Obiectivul acestui studiu este identificarea modificărilor histologice mucoase la pacienți cu anticorpi antiHP, diagnosticarea endoscopică a gastritei și studiul statusului imunologic al pacienților prin imunofenotipizarea citometrică a limfocitelor periferice.

Material și metodă. Lotul pacienților a fost selectat din cei cu tulburări dispeptice, internați în Departamentul de Endoscopie al Spitalului Clinic de Urgențe, „Sfântul Ioan”, din București. Vârsta celor 50 de bolnavi a fost de 40-70 ani, cu anticorpi antiHP pozitivi serologic. Pacienții au fost examinați endoscopic și, la cei cu leziuni cronice de gastrită, s-a practicat flow-citometrie din limfocitele periferice.

Rezultate. Un grup de 33 (66%) bărbați și 17 (34%) femei au fost depistate cu HP pozitiv serologic. Au fost grupați în 3 categorii de vârstă: 40-50 ani (25 pacienți - 50%), 50-60 ani: 21 pacienți (42%) și 60-70 ani: 4 pacienți (8%). La 17 subiecți (34%) s-au depistat 4 tipuri de gastrită: eritematoasă, erozivă, atrofică și gastrită de reflux biliar, s-a practicat endoscopie digestivă superioară. Examenul histopatologic a evidențiat gastrită cu modificări mucoase la 10 din cei 17 bolnavi. La toți 17, s-a practicat fenotipizarea citometrică a limfocitelor periferice cu anticorpi monoclonali.

Concluzii. Pacienții HP pozitivi testați serologic, cu leziuni endoscopice de gastrită cronică prezintă un status imunologic alterat, diagnosticat prin flow-citometrie.

Gastrita eritematoasă este forma cea mai frecvent întâlnită.

Cuvinte-cheie: *Helicobacter pylori*, gastrită cronică, imunofenotipizare, flow-citometrie