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# Study of the structural changes' dynamics in the patients with a *Helicobacter pylori*-related gastritis

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**Background.** The dynamics over the past 10 years in Kazakhstan has had a tendency for an increase in the incidence of malignant neoplasms by 9.5% and a decrease in the mortality rate by 28.5%. In the structure of morbidity, stomach cancer takes the third place – 8.6%. The main purposes of a research are to study the dynamics of atrophic changes of gastric mucosa (GM) within a long period (in 5 years' time) in the patients with *Helicobacter pylori* (HP)-related chronic atrophic gastritis, and to take cancer-preventive measures.

**Aim.** The aim of the current study was study of the structural changes' dynamics in the patients with a HP-related gastritis.

**Methods.** 835 patients with a dyspepsia were examined by a minimally invasive screening procedure “GastroPanel” (MCH PAA RK) in 2011–2013. Consequently, 118 patients (14.1%) were diagnosed with the HP-related chronic atrophic gastritis with a diverse location of GM. Among examined patients were 93 (78.8%) with the completed invasive study – esophagogastroduodenoscopy with a HP detection. Chronic atrophic gastritis was histologically confirmed within 46 among 93 (49.5%) patients according to the system OLGA (men – 14, women – 32, average age –  $48.8 \pm 8.7$ , age range 26–67 years).

**Results.** Histologic study results of GM are shown in the table below.

		Antrum	Body of stomach	Multifocal disease
First Atrophy	Stage	16	19	10
Second Atrophy	Stage	25	3	1
Third Atrophy	Stage	4	2	-
Colonic metaplasia		4	1	-
Mixed metaplasia		3	1	-

**Conclusion.** Thus, “GastroPanel” is a highly-sensitive research which helps to determine atrophic changes of GM by a minimally invasive method and to specify a risk group with a gastric cancer potential among patients. Therefore, it supports prevention of a gastro carcinogenesis or its diagnosis within remediable life stages.

In prospect, an advanced study is required among patients with precancerous changes in a stomach and those HP stocks, which lead to a gastro carcinogenesis. More specifically, with s1/m1 variant *vacA* genes and/or *cagA* genes. Analytical part of a research is in progress at this time, which will develop a deeper understanding of precancerous progression in GM within a long date and part of HP reinfection in a gastro carcinogenesis within the reviewed period.