

Abstract

Helicobacter pylori (hereinafter referred to as *H. pylori*) is a gram-negative bacteria which colonises the human stomach mucosa. Its role in the aetiopathogenesis of chronic gastritis, ulcer disorders of the gastroduodenum and MALT-lymphoma has been clearly demonstrated, and in connection with the occurrence of stomach cancer it has been indicated by the World Health Organisation (WHO) as a class I carcinogen.

H. pylori infection can be detected from samples of stomach mucosa taken in an endoscopic examination (rapid urease test, microscopic examination, culture), or the non-invasive method can be used (¹³C-Urea Breath Test or *H. Pylori* stool antigen test - HpSA).

Effective therapy of *H. pylori* infection resides in the administration of a combination of antibiotics and a proton pump inhibitor. In recent years the resistance of bacterial strains to used antibiotics has been increasing on a worldwide scale, and we can also observe this trend in the case of *H. pylori*. If the level of resistance exceeds 20 % for clarithromycin and 40 % for metronidazole, these antibiotics are not recommended for the treatment of an infection caused by this bacteria.

In a group of 61 patients at the Department of Internal Medicine at the University Hospital Motol who had undergone an endoscopic examination of the stomach and duodenum during the course of the last two years in connection with the taking of a sample of stomach mucosa, sensitivity of infecting strains of *H. pylori* to administered antibiotics was determined. These results were confirmed with the examination which was conducted at the same workplace during 1998 and 1999.

In this group of patients a statistically significant increase in the resistance of *H. pylori* strains to clarithromycin was confirmed, from 4% to 29.5%. The resistance of strains of this bacteria to metronidazole decreased from 42% to 37.7%, but in the group of observed female patients reached the level of 46.4%, which renders it no longer usable for effective treatment.