

## عنوان مقاله:

Alteration of P53, hMLH1, and HER2 Gene in Bangladeshi Gastric Cancer Patients: Their Association with H. pylori Infection and Clinicopathological Factors

## محل انتشار:

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## خلاصه مقاله:

**Background:** Gene alterations are required for the development of gastric cancer, which are influenced by environmental and host factors. We conducted the present study to find the status of *Helicobacter pylori* (*H. pylori*) infection and its association with altered genes P53, hMLH1, and HER2 in gastric cancer patients and to analyze their correlation with clinical, pathological, and environmental factors. **Method:** This was a cross-sectional study. For genetic (P53 and hMLH1) study of the gastrectomized tissue DNA extraction and optimization, we performed PCR amplification and DNA sequencing. HER2 was studied by immunochemical technique. The results were matched with tumor status, age and sex, smoking, and *H. pylori* antibody status of the patients to find their association. **Results:** The mean age of the patients was 52.91 ( $\pm 13.94$ ) years. Among the 45 patients selected for genetic tests, 12 aged 40 or more and 33 aged over 40. Among the genes, 33 (73.3%) in P53 and 12 (37.7%) in hMLH1 were mutated and 11 (24.4%) in HER2 were found to be overexpressed. Chi square and regression analysis showed that they all had associations with *H. pylori* positivity ( $P < 0.05$ , odds ratio  $> 1$ ). hMLH1 was associated with the location of the tumor, smoking, sex,

blood group, and age, and P53 was found to be affected by extra salt intake, sex, blood group, and age of the patients ( $P \leq 0.05$ ). Conclusion: Genetic mutation was found in nearly all the patients with gastric cancer, which was significantly associated with H. pylori infection. Mass eradication of this organism might play a role in reducing cancer incidence in Bangladesh.

### کلمات کلیدی:

Stomach Neoplasms, Helicobacter pylori, Genes, p53, hMLH1, HER2

### لینک ثابت مقاله در پایگاه سیویلیکا:

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