

# PREVALENCE OF GASTRIC CANCER PRECURSOR LESIONS IN PATIENTS OF A SECONDARY CARE CENTER IN A STATE IN SOUTH OF BRAZIL

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## ABSTRACT

**BACKGROUND:** Atrophy of the gastric mucosa and intestinal metaplasia is considered malignant precursor lesions of gastric cancer, which is considered the fifth most common neoplasm in the world and the third cause of death from cancer. The main risk factor is the infection by *Helicobacter pylori* (*H. pylori*), which increases up to six times the risk of gastric cancer, through gastritis, atrophy, and hypochlorhydria, consequences of the infection. Other risk factors are smoking and family history of gastric cancer.

**OBJECTIVE:** To investigate the prevalence of malignant precursor lesions and their associated factors in patients who underwent upper gastrointestinal endoscopy.

**METHODS:** This descriptive, observational, individualized cross-sectional study was performed based on an analysis of endoscopic gastric biopsies performed in two affiliated private laboratories to the Unified Health System (Sistema Único de Saúde [SUS]) in a city in Paraná state. Patients were assessed for age, sex, active or recent smoking, family history of gastric cancer, and previous treatment for *H. pylori*. The samples were evaluated for the presence of glandular atrophy, intestinal metaplasia, dysplasia and *H. pylori* infection.

**RESULTS:** A total of 1,549 medical records and patient reports were evaluated and 945 were eligible, the average age was 52.2 ( $\pm 14.3$ ) years old and most patients (73.3%) were female. The prevalence of *H. pylori* infection was 47.5% (n=449) and the highest percentage was between 30-39 years (58.7%). Among *H. pylori* positive (+) patients who had developed intestinal metaplasia, there is more risk of having incomplete than complete metaplasia (OR: 4.34; 1.1–17.1; 95%CI). Patients who smoke are more increase the risk to developed glandular atrophy (OR: 1.91; 1.09–3.33; 95%CI) and intestinal metaplasia (OR: 1.93; 0.72 – 5.11; 95%CI).

**CONCLUSION:** The study reinforces risk factors such as smoking and *H. pylori* infection as precursors for developing pre-neoplastic lesions in a population in southern Brazil, highlighting the importance of smoking cessation and prevention of *H. pylori* infection and the treatment of infected patients.

**HEADINGS:** Metaplasia; *Helicobacter pylori*; Atrophy; Stomach Neoplasms