THE NECESSITY OF A BIOPSY DURING ENDOSCOPY IN THE DIAGNOSTICS OF GASTRIC ATROPHY AND GASTRIC INTESTINAL METAPLASIA

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Introduction. Gastric atrophy is a result of prolonged chronic gastritis, in which the gastric mucosal glands become attenuated and eventually lose their ability to secrete gastric juices. Gastric intestinal metaplasia is the replacement of the surface, foveolar, and glandular epithelium in the oxyntic or anthral mucosa by intestinal epithelium. Both are relatively frequent preneoplastic lesions which are diagnosed by doing an endoscopy and a biopsy. Even though a biopsy can be taken in every endoscopy, diagnosis is often based only on the endoscopical finding as the biopsy is twice as expensive as the endoscopy itself.

Aim. Evaluate the need of a biopsy during an endoscopy in the diagnostics of gastric atrophy and gastric intestinal metaplasia. In a retrospective case series study 660 patients (73% were women, 27% were men) of Centre „GASTRO" were included. Patients with standard biopsy schemes that had had their endoscopies done during the time period of the 1st of January till the 31st of December were selected.

Results. Out of 660 patients in age 65.3±13.7. In total 374 patients (56.7%) had gastric atrophy in their biopsies. The sensitivity of endoscopy was 34.5% (95% CI 29.9-39.4%), specificity - 90.5 % (95% CI 86.6- 93.4), positive predictive value was 82.7%, negative predictive value - 51.4%, in comparison to the biopsy results. 351 patients (53.2%) had gastric intestinal metaplasia and the sensitivity of endoscopy was 7.4% (95% CI 5.1- 10.6%), specificity was 99.7% (95% CI 98.2-99.9), PPV was 96.3%, NPV was 48.6%. 33 (6%) of the patients (age ≥50 years) had high risk gastric atrophy (OLGAIII, OLGAIV) which is considered high compared to 0% in the younger patients (age <50 years, n=113). 53 (9.7 %) of the patients (age ≥50 years) had high risk gastric intestinal metaplasia (OLGIMIII, OLGIMIV), in comparison only 2 (1.8 %) of the patients (age <50 years) were diagnosed with a high risk intestinal metaplasia.

Conclusions. Results show that endoscopy has a low sensitivity in diagnosing gastric atrophy and intestinal metaplasia, and biopsy should be done in order to diagnose these conditions. Especially in those patients of age ≥50 years, who have a much greater chance of high risk gastric atrophy and intestinal metaplasia. For those patients with established atrophic gastritis and established intestinal metaplasia, surveillance screening for dysplasia and gastric adenocarcinoma should be considered.