

THE MORPHOFUNCTIONAL PECULIARITIES OF THE ESOPHAGO-GASTRIC JUNCTION IN CLINICAL ASPECT

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Background. The esophago-gastric junction (EGJ) has a physiological sphincter that enables the passage of the alimentary bolus and prevents the gastroesophageal reflux (GER). The medical community highlighted this junction as an important clinico-anatomical entity, due to its morphopathological substrate for several diseases, one of them being the gastroesophageal reflux disease (GERD). In order to determine the pathogenic link between the morphological structure of the EGJ and onset of the GERD, the patients were examined by paraclinical methods.

Materials and methods. The study was carried out on 250 patients, hospitalized at the MSPI CRH "Timofei Mosneaga" during the years 2019-2022. The endoscopic and radiological results were taken from the observation sheets of the patients and were statistically analysed.

Results. The patients included into the study were aged between 19-73 years (with a mean age of 55.5 ± 2.3 years). The endoscopic examination was carried out on 121 patients (48.4%) and the radiological examination on 129 (51.6%). By endoscopic examination, non-erosive GERD was established in 62.8% of patients (with a mean age of 41.8 ± 0.8 years) and erosive GERD – in 37.2% of patients (with a mean age of 48.02 ± 0.5 years). The diagnosis of the erosive GERD was established depending on the degree of the mucosal changes. Non-confluent unique erosions were identified in 22.2% (degree I); confluent erosions with partial lesion of the mucosa – 33.4% (degree II); ulcerative lesions of the lower 1/3 of the esophageal mucosa – 24.4% (degree III); chronic peptic ulcer of the esophagus – 20% (degree IV). The incompetence of the inferior esophageal sphincter (IES), diagnosed endoscopically had the following rate: degree I – 28.3%, degree II – 33.9% and degree III – 37.8%. By barium sulfate x-ray examination were determined the types of the GER: high level (up to the C6 vertebra) – in 29.4%; middle level (up to T6) – 47.3%, and low level (up to T11-12) – 23.3%.

Conclusions. GERD is onset in case of incapacity of the anti-reflux mechanisms. In 2/3 of the endoscopically examined patients, a II-nd and III-rd degree failure of the IES was determined; in 1/2 of the radiologically examined patients a medium degree of the GER; in 1/4 – a high degree was revealed. Both endoscopic and radiological, diagnostic methods, are up-to-date and useful in GERD diagnostics.

Keywords: esophagogastric junction, inferior esophageal sphincter, gastroesophageal reflux disease.