We express our sincere gratitude to the Reviewer for dedicating their time and expertise to thoroughly evaluate our article. Their invaluable insights and constructive feedback have played a pivotal role in shaping the trajectory of our research. We are genuinely appreciative of the opportunity to address their comments and incorporate their suggestions into this revised version. Please find our responses to specific points below:

Specific comments: The article is devoted to assessing the state of the inflammatory response of the esophageal mucosa in patients with GERD by studying the level of pro- and anti-inflammatory cytokines in biopsy samples over time under the influence of laparoscopic antireflux surgery. The expression of pro-inflammatory proteins after laparoscopic antireflux surgery indicates ongoing inflammation in the esophageal epithelium, which creates conditions for the persistence of structural changes for 6 months after surgery. The results of the study seem extremely relevant and contribute to a deeper understanding of the course of reflux esophagitis, and will contribute to the development of treatment regimens for the most effective management of the patient. The study is well planned, has the approval of the ethics committee, and the process of forming the research cohort is described in detail. Some limitation is the withdrawal from the study of 13 out of 35 patients of the main group (35 patients with GERD were included in the study, of which 22 completed the study). In the future, to assess the structural stigmas of inflammation in conditions of reflux esophagitis, it is advisable to increase the sample size and prolong the study to allow for a more in-depth and comprehensive analysis To clarify, we would like a more detailed description of the somatic status of the patients, the presence of concomitant diseases, as well as possible therapy for these diseases that those included in the study received, since a number of drugs can affect the condition of the esophageal mucosa.

Answer: Regarding the suggestion to increase the sample size in future work, we acknowledge this and have provided a detailed description of the patients in the Materials & Methods section, under the Subjects sub-section. All patients experienced pyrosis and/or regurgitation at least once a week and completed the GERDQ (Validated Mayo Clinic) and QoLRAD (Quality of Life) questionnaires. Patients ceased

proton-pump inhibitors, H2 blockers, and antacids at least 10 days pre-procedure. All healthy controls (HCs) exhibited normal intraesophageal 24-h MII-pH and HRM, with no history of upper GI disease or surgery. Patients with GERD who underwent LARS treatment already had a pathological reflux burden according to MII-pH monitoring and/or endoscopically observed esophageal erosions. Exclusion criteria for both patients and HCs included primary esophageal motility disorders, Barrett's esophagus, previous upper gastrointestinal surgery, chronic renal failure, severe coronary artery disease, severe chronic obstructive pulmonary disease, uncontrolled diabetes mellitus, pregnancy, lactation, and other disorders that may impact the study, with the exception of cancer (excluding non-melanoma skin cancer).