

IMPROVEMENT OF TREATMENT OF GASTROESOPHAGEAL REFLUX DISEASE

СОВЕРШЕНСТВОВАНИЕ ЛЕЧЕНИЯ ГЭРБ

GASTROEZAFAGEAL REFLYUKS KASALLIGINI DAVOLASHNI
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Annotation. Relevance. Gastroesophageal reflux disease (GERD) is the most common gastrointestinal disease worldwide and leads to significant morbidity, although mortality is rare. The overall prevalence of at least weekly GERD symptoms, registered in population studies worldwide, is about 13%, but there are significant geographical differences, with the highest rate in South Asia and Southeast Asia. **Objective.** improving the results of reflux esophagitis treatment by improving the method of transcutaneous laser exposure to various sections of the esophagus. **Materials.** The study was conducted in the surgical department of the AGMI Clinic and the "ENDOMED" private clinic in Fergana, where 50 patients with GERD were examined. **Results.** Improving the methods and technical techniques for treating esophagitis allows for the suppression of esophageal spasm, reduces inflammatory processes in the mucous membrane, and accelerates regeneration due to local improvement in microcirculation. It has been established that the proposed comprehensive conservative treatment of gastroezofageal reflux disease is effective for both. **Conclusion.** According to the authors, the SIXAT-1 emitter allows for the creation of sufficient energy concentrations for effective therapeutic action at a depth of up to 70 mm, which allows it to be recommended for action on deep organs and tissues.

Keywords: Esophagus, Gastroesophageal disease, reflux esophagitis.

Аннотация. Актуальность. Гастроэзофагеальная рефлюксная болезнь (ГЭРБ) является наиболее распространенным желудочно-кишечным заболеванием во всем мире и приводит к значительной заболеваемости, хотя связанная с этим смертность встречается редко. Совокупная распространенность хотя бы еженедельных симптомов ГЭРБ, зарегистрированная в популяционных исследованиях по всему миру, составляет примерно 13%, но существуют значительные географические различия, самый высокий уровень в Южной Азии и Юго-Восточной Европе (более 25%), а самый низкий в Юго-Восточной Азии, Канаде и Франции (ниже 10%) **Цель.** улучшение результатов лечения рефлюкс-эзофагитов путем усовершенствования методики чрескожного лазерного воздействия на различные отделы пищевода. **Материалы.** Исследование проводилось в хирургическом отделении Клиника АГМИ и частная клиника "ENDOMED", Город Фергана в котором приняли участие 50 пациент с диагнозом ГЭРБ. **Результаты.** После улучшения методик и технических приемов лечения эзофагитов позволяет купировать спазм пищевода, уменьшит воспалительные процессы в слизистой, ускорить регенерацию за счет локального улучшения микроциркуляции, установлено, что предложенное комплексное консервативное лечение

гастроэзофагеальной рефлюксной болезни обеспечивает ускорение сроков регресса симптомов эзофагита, сокращает период лечения и частоту неудовлетворительного исхода, а также риск ближайшего рецидива. **Заключение.** По мнению авторов, Излучатель СИХАТ-1 позволяет создавать достаточные энергетические концентрации для эффективного терапевтического воздействия на глубине до 70 мм, что позволяет его рекомендовать для воздействия на глубоко лежащие органы и ткани.

Ключевые слова: Пищевод, Гастроэзофагеальная болезнь, рефлюкс эзофагит.

Annotatsiya. Relevance. Gastroezofageal reflyuks kasalligi (GERK) butun dunyo bo'ylab eng keng tarqalgan oshqozon-ichak trakti kasalligi bo'lib, o'lim holatlari kam bo'lsa-da, sezilarli kasallanishga olib keladi. Butun dunyo bo'ylab populyatsion tadqiqotlarda qayd etilgan GERKning kamida haftalik simptomlarining umumiy tarqalishi taxminan 13% ni tashkil qiladi, ammo sezilarli geografik farqlar mavjud bo'lib, eng yuqori ko'rsatkich Janubiy Osiyo va Janubi-Sharqiy Osiyoda qayd etilgan. **Maqsad.** Tadqiqotning maqsadi qizilo'ngachning turli qismlariga transkutan lazerli ta'sir ko'rsatish usulini takomillashtirish orqali reflyuksli ezofagitni davolash natijalarini yaxshilashdan iborat. **Materiallar** Tadqiqot AGMI klinikasining jarrohlik bo'limida va Farg'ona shahridagi "ENDOMED" xususiy klinikasida o'tkazildi, unda GERK bilan kasallangan 50 nafar bemor tekshirildi. **Natijalar.** Ezofagitni davolash usullari va texnikasini takomillashtirish qizilo'ngach spazmini bostirish, shilliq qavatdagi yallig'lanish jarayonlarini kamaytirish, mikrotsirkulyatsiyaning mahalliy yaxshilanishi hisobiga regeneratsiyani tezlashtirish imkonini beradi. Gastroezofageal reflyuks kasalligini taklif etilgan kompleks konservativ davolash ikkala guruh bemorlari uchun ham samarali ekanligi aniqlandi. **Xulosa.** Mualliflarning fikriga ko'ra, SIXAT-1 nurlantirgichi 70 mm gacha chuqurlikda samarali terapevtik ta'sir uchun yetarli energiya konsentratsiyasini yaratish imkonini beradi, bu esa chuqur a'zolar va to'qimalarga ta'sir qilish uchun tavsiya qilish imkonini beradi.

Kalit so'zlar: Qizilo'ngach, oshqozon-qizilo'ngach kasalliklari, reflyuksli ezofagit.

Introduction. According to estimates, the prevalence of GERD worldwide is 8-33%, affecting all age groups and both genders, and its cost is estimated at approximately \$9-10 billion per year in the United States alone, which is largely due to the use of proton pump inhibitors (PPI). Gyawali CP, et al. (2018) believe that the modern paradigm of GERD diagnosis is based on identifying gastroesophageal reflux-induced lesions of the esophageal mucosa or disturbing symptoms. A presumptive diagnosis of GERD is confirmed by a favorable response to PPI therapy. The primary determinant of mucosal injury is excessive acid exposure to the esophagus, associated with anatomical or physiological defects of the esophagogastric junction and esophageal peristalsis. Marin I. (2017) believes that GERD symptoms have many potential determinants, including the number of reflux episodes, the proximal extent of reflux migration, reflux acidity, esophageal hypersensitivity, and cognitive hypervigilance. Therefore, depending on the clinical context, the defining features of GERD can be pathology, physiology, or symptomatology. In this paradigm, Săraru ER (2021) conducts an esophageal examination to determine the optimal treatment, be it PPI therapy, antireflux surgery (ARS), or cognitive behavioral therapy. The results of the comprehensive approach to the treatment of ER were interpreted according to the following scale.

Good – the effect of therapy with the elimination of clinical manifestations of ER in the first 1-3 weeks of treatment, no relapses and complaints during 3 months of observation.

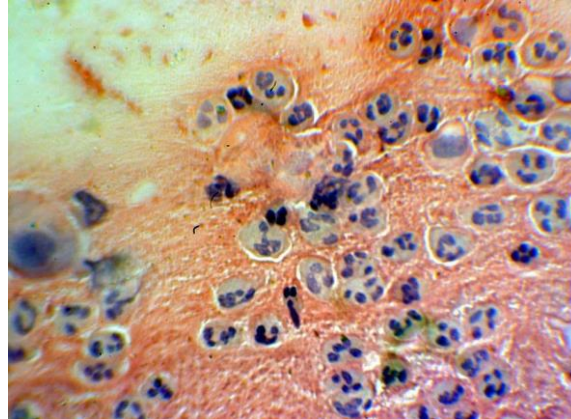
Satisfactory – the effect of therapy with the elimination of clinical manifestations of ER in prolonged periods of treatment (1-1.5 months), no relapses and periodic complaints (pain, heartburn) requiring an additional course of treatment during 3 months of observation.

Unsatisfactory - ineffective conservative therapy with persistent or periodic (more than once a week) complaints or relapse of ER within 3 months of observation.

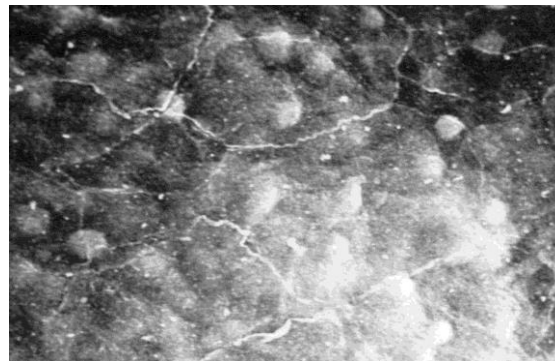
Clinical example: Patient Tosheva M., born in 1951. D-z: Chronic calculous cholecystitis, condition after appendectomy and cesarean section.

On EGDFS No. 38: Catarrhal gastroduodenitis, duodenogastric and gastroesophageal reflux, esophagus without organic pathology.

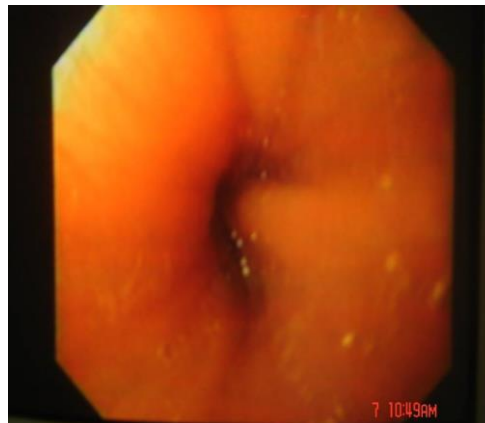
The patient underwent biopsy from 3 points in the distal esophagus, as well as taking material for cytological examination from the same area. All the taken material was marked and sent for histological and cytological examination (Fig. 1, 2). On EGDFS #41: Catarrhal reflux gastritis, duodenogastric and gastroesophageal reflux, catarrhal reflux esophagitis. Biopsy samples were taken from 3 points in the distal esophagus with biopsy forceps, and material was taken for cytological examination from the same area with a cytological brush. All the material taken was marked and sent for histological and cytological examination.



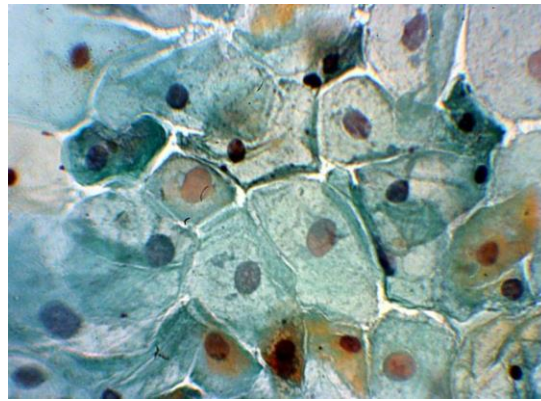
**Pic. 1. Romanovsky-Giemsa staining, x160
Detritus and neutrophilic leukocytes and with pronounced inflammatory phenomena in
the mucous membrane of the esophagus.**



Pic. 2. Esophageal mucosal surface relief. Normal mucosal surface, SEM x2500



**Pic. 3. Patient Nurmatova Sh., born in 1960, outpatient department.
Doctoral note: Condition after liver echinococectomy.**

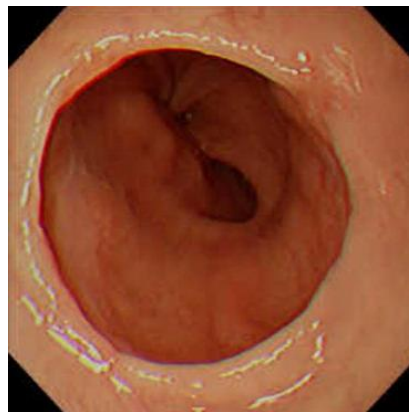


Pic. 4. Romanovsky-Giemsa staining, x300



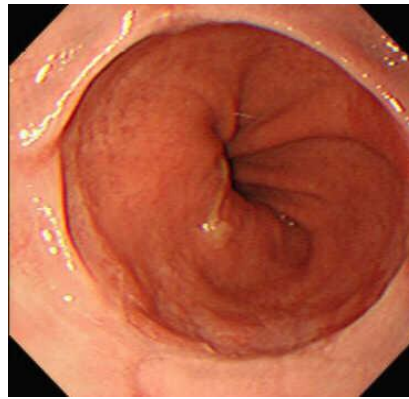
**Pic. 5. Patient Almatov A., 43 years old, OKH, case #2058.
D-z: Ischemic heart disease, PICS 2006.**

On emergency EGDFS #269: chronic ulcer with fibrin on the bottom of the anterior, post-ulcer scar with erosive inflammation of the posterior walls of the duodenal bulb, a small amount of “coffee grounds” in the lumen of the stomach, erosive-peptic reflux esophagitis of the lower third of the esophagus.



**Pic. 6. Patient Ruziev G., 55 years old, department of the OCH, case #3544.
D-z: coronary heart disease, progressive angina pectoris grade II.**

On EGDFS №167: Hernia of the esophageal opening of the diaphragm 35 cm from the incisors, 5 cm deep, mild peptic reflux esophagitis of the lower third of the esophagus.



Pic. 7. Patient Raimov O, 47 years old, Department of Chronic Peptic Ulcers and Gastroenterology, case №176.

Doctor of Health: Peptic ulcer of the duodenum complicated by bleeding.

On EGDFS №154: Cicatricial-ulcerative deformation of the duodenal bulb with stenosis of the lumen with a diameter of 0.9 cm, which is difficult to pass with an instrument. Chronic ulcer of the anterior wall of the duodenal bulb with a loose fixed thrombus at the bottom (Fr II a). Hernia of the esophageal opening of the diaphragm 38 cm from the incisors, 4-5 cm deep, erosive-peptic reflux esophagitis of the lower third of the esophagus.

Conclusion. Thus, the conducted studies allowed us to draw the following conclusion: during endoscopic examinations for diagnostics of various pathologies of the upper gastrointestinal tract, various manifestations of reflux esophagitis were detected in 30.6% (in 205 of 669 examined) of patients, in the structure of which the I degree according to Savary-Miller was 57.1% (in 117 patients), II degree in 23.9% (49), III - in 12.7% (26) and IV in 6.3% (13) of cases. Among the main risk factors against which ER was detected were obesity, stress, smoking, hiatal hernia, NFC, medication intake, as well as the alimentary factor. In their presence, the frequency of ER development reached 44.6-71.4% of cases (in the presence of the factor), whereas in the absence of these factors, esophagitis was detected much less frequently - 15.7-28.7% of cases. In turn, in the absence of risk factors, the incidence of EC development was 6.1% (in the structure of all examined patients with upper gastrointestinal tract pathology), while the presence of 1 factor increases the risk of EC development to 21.6% ($\chi^2=17.749$; Df=1; $p<0.001$), 2 factors - up to 41.3% ($\chi^2=68.082$; Df=1; $p<0.001$), and 3 or more - up to 85.5% ($\chi^2=143.383$; Df=1; $p<0.001$). The effectiveness of standard therapeutic measures can lead to regression of clinical manifestations of ER in an average of 73.1% of cases for all diseases of the upper gastrointestinal tract (in 128 of 175 patients in both study groups, excluding 7 patients with isolated ER), while 26.9% of patients (47 of 175) have a risk of refractory esophagitis, requiring prolonged treatment with an expanded range of physical and pharmacological approaches to the treatment of this pathology.

References:

1. Dissertation of the candidate of medical sciences Akbarov F.S. Improving the complex treatment of gastroesophageal reflux disease 2022-g. Andijan.
2. Baibekov I.M., Kalish Yu.I., Ametov L.Z., Shayusupov A.R. Effect of lasers on tissue reaction during implantation of prolene endoprosthesis under infection conditions. *Laser medicine* 2008, v. 12.- in 2 p. 45-49.
3. Baibekov I.M., Baibekov A.I. Morphological substantiation of the effectiveness of complex intravascular and local laser therapy. *Laser medicine*. -2011.-, v-15, p. 108.
4. Bakulin I.G., Oganezova I.A., Bakulina N.V., et al. Outpatient gastroenterology: a guide for doctors / edited by professor I.G. Bakulin. - M.: UMI, 2020. - 300 p..
5. Aziz AM, El-Khayat HR, Sadek A, et al. A prospective randomized trial of sham, single-dose Stretta, and double-dose Stretta for the treatment of gastroesophageal reflux disease. *Surg Endosc*. 2010;24:818-825. doi:10.1007/s00464-009-0671-4.

6. Babenko V.A., Gorelik V.S., Sychev A.A. // J. of Russ. Las. Res. 1999. V. 20. P. 152-171.
7. Barnes WE, Hoddinott KM, Mundy S, et al. Transoral incisionless fundoplication offers high patient satisfaction and relief of therapy-resistant typical and atypical symptoms of GERD in community practice. *Surg Innov.* 2011;18:119-129. doi:10.1177/1553350610392067.
8. Bazerbachi F, Krishnan K, Abu Dayyeh BK. Endoscopic GERD therapy: A primer for the transoral incisionless fundoplication procedure. *Gastrointest Endosc.* 2019;90(3):370-383. doi:10.1016/j.gie.2019.05.028.
9. Bell RC, Fox MA, Barnes WE, et al. Univariate and multivariate analyses of preoperative factors influencing symptomatic outcomes of transoral fundoplication. *Surg Endosc.* 2014;28:2949-2958. doi:10.1007/s00464-014-3557-z.
10. Bell RC, Freeman KD. Clinical and pH-metric outcomes of transoral esophagogastric fundoplication for the treatment of gastroesophageal reflux disease. *Surg Endosc.* 2011;25:1975-1984. doi:10.1007/s00464-010-1497-9.
11. Benias PC, D'Souza L, Lan G, et al. Initial experience with a novel resection and plication (RAP) method for acid reflux: A pilot study. *Endosc Int Open.* 2018;6:E443-E449. doi:10.1055/s-0044-101453.
12. Ben-Porat T, Sherf Dagan S, Goldenshluger A, et al. Gastrointestinal phytobezoar following bariatric surgery: Systematic review. *Surg Obes Relat Dis.* 2016;12(9):1747-54.
13. Bevilacqua L.A., Obeid N.R., Yang J., et al. Incidence of GERD, esophagitis, Barrett's esophagus, and esophageal adenocarcinoma after bariatric surgery. *Surgery for Obesity and Related Diseases.* 2020;16(11):1828-1836. doi:10.1016/j.soard.2020.06.016.
14. Bou Daher H, Sharara AI. Gastroesophageal reflux disease, obesity and laparoscopic sleeve gastrectomy: The burning questions. *World J Gastroenterol.* 2019;25:4805-4813. doi: 10.3748/wjg.v25.i33.4805.