

Principles of Surgical Tactics for Girls of the Diaphragma of the Esophae

Bobomuradov B. M.

State Institution "RSNPMCKh named after academician V.Vakhidov," Tashkent city

Gulyamov O. M.

State Institution "RSNPMCKh named after academician V.Vakhidov," Tashkent city

Akhmedov G. K.

Samarkand State Medical University

Khaidarova L. O.

Samarkand State Medical University

Abstract: The article is based on data on the diagnosis and various surgical treatment methods of 104 patients with diaphragm esophageal hernia who were treated in the thoracoabdominal onco-surgery department of the RSPCMC named after Academician V.V. Vokhidov. The features of diagnosis and surgical treatment of diaphragmatic hernias in our patients have been shown.

Keywords: diaphragm esophageal hernia, gastroesophageal reflux disease, endoscopic examination, antireflux surgeries.

Relevance: According to various authors, with the development of various diagnostic tools, the diagnosis of esophageal glandular hernia (ESG) is more common than 30 years ago and is second only to chronic cholecystitis and gastric and duodenal ulcer disease among digestive organ pathologies [2, 6, 11].

In contrast to surgical treatment, the development of pharmacotherapy has provided enormous opportunities for treating peptic ulcer disease and gastroesophageal reflux disease (GERD). It can be said that there is still a great debate between drug and surgical treatment of GERD [3, 8, 15].

According to some authors, prolonged use of proton pump inhibitors (PPI) not only reduces symptoms but also leads to a complete temporary improvement in the patient's condition. However, when conservative therapy is discontinued, symptoms of GERD appear after some time. Such relapses can lead to the development of various complications [1, 5, 10, 14].

DPOD and GERD are most often complicated by esophageal ulcer or stricture, bleeding, and perforation of the esophageal wall, but especially due to metaplasia of the cylindrocellular epithelium, the "Barrett's esophagus" (BEs) can develop, which can transition into adenocarcinoma [4, 9, 12].

The introduction and development of minimally invasive treatment methods, especially laparoscopy, has given "big access" to treating patients with POD and expanded indications for surgical treatment [7, 13].

Purpose of the study: To study the features of diagnosis and various tactics of surgical treatment of patients with POD.

Materials and Methods: We analyzed the results of surgical treatment of 104 patients with GPOD operated on in the thoracoabdominal oncology department of the RSNPCMC named after academician V.Vakhidov in the period 2021-2023. The age of the patients ranged from 21 to 67 g, averaging 38.5 l. Female patients predominated: women - 63 (60.6%), men - 41 (39.4%). Age-wise, it can be seen that the majority (84.6%) were patients of working age (Table. 1).

Table 1. Distribution of patients by sex and age.

Floor	19-44	45-59	60-74	75 <
Husband. (n=41)	16	18	7	-
Wife. (n=63)	31	21	11	-
Total (n=104)	47	39	18	-

Upon admission, the main complaints were heartburn (93%), belching (65%), pain in the epigastric and thoracic regions (34%), and nausea and vomiting were observed in 27% of patients, mainly in patients with chronic cholecystitis, hiccups, and regurgitation in 12% of patients. Also, of these, 18% of patients complained of other organ pathologies (rest, chest pain, heart palpitations, especially after eating, constant coughing).

All patients underwent standard laboratory and instrumental research methods: including EGDFS (in dynamics), abdominal ultrasound, ECG, radiological studies (overview non-contrast and contrast radiography of the upper digestive tract organs), MRI, MSCT, EchoCG.

Endoscopic examination was performed several times (before and after surgery). When reflux esophagitis was detected, especially in suspected cases of Barrett's esophagus ("flame tongues" over the cardia), endoscopic examination was conducted in a narrow spectral mode (NBI mode). X-ray contrast analysis was performed on all patients. The study was conducted with the patient in a vertical position and Trendelenburg posture. All patients were examined by specialists (cardiologist, pulmonologist, anesthesiologist, women by gynecologist, and, if indicated, by endocrinologist, etc.) during the preoperative period.

When distributing patients with POD, we used the classification recommended by the American Association of Gastroenterological and Endoscopic Surgeons (SAGES) in 2013. Patients with PB used the Prague classification proposed by the International Working Group in 2004.

During the examination, in some patients, in addition to GPOD, various comorbidities were identified: diseases of the circulatory organs - in 37 (35.6%) patients, respiratory organs - in 4 (3.8%), obesity of varying degrees - in 31 (29.8%) patients, and type II diabetes mellitus - in 18 (17.3%) patients. Also, several abdominal organ pathologies have been identified, such as chronic calculous cholecystitis, anterior abdominal wall hernias, and others. Some patients had a combination of several comorbidities. All patients with comorbidities are prepared for operations in outpatient and inpatient settings. One patient was diagnosed with recurrent POD.

Patients were divided into 2 groups: The 1st group consisted of 71 (68.3%) patients who underwent laparoscopic crurorraphy of the diaphragm legs and fundoplication according to Nissen. Patients of the 2nd group (n=33 (31.7%)) underwent Toup fundoplication laparoscopically.

Results and discussions. During endoscopic examination, 46 (44.2%) patients were suspected of PB and underwent endoscopy with narrow-spectral imaging (in NBI mode) using the Olympus CV-170 endoscope. Of these, in 31 patients suspected of various pathologies of the esophageal mucosa during endoscopy, biopsy materials were taken from several areas according to the Seattle protocol (at least 3-4 fragments at a distance of about 1-2 cm from each other) for histological examination to verify pathological changes. At the same time, in 23 patients in 42 areas, characteristic Barrett's esophagus features (presence of cylindrocellular and goblet-shaped cells on the esophageal epithelium) were revealed. When suspected of esophageal adenocarcinoma, patients were referred to the oncological dispensary for more in-depth examination.

When distributing the types of hernias in patients, mainly type I (axial) hernias were noted (n=96 (92.3%)): of the lower esophageal - 12, cardiac - 46 cases, cardiac - 35 cases, and in 3 cases, subtotal axial DIC was detected. In 6 (5.8%) patients, type II (paraesophageal) hernias were identified: fundal in 4 cases and antral in 2 cases. In 2 (1.9%), Larrey and Morgagni diaphragm triangle hernias were identified.

All operations were performed under general endotracheal anesthesia. Patients of the 1st group (n=71 (68.3%)) underwent laparoscopic crurorrhaphy, fundoplication according to Nissen, patients of the 2nd group (n=33 (31.7%)) underwent posterior crurorrhaphy and fundoplication according to Tupe laparoscopically. In some patients of the 1st group, to improve the effectiveness and prevent postoperative complications, laparoscopy, selective proximal vagotomy, and Heinik-Mikulic pyloroplasty were performed (Fig. 1. a, b).

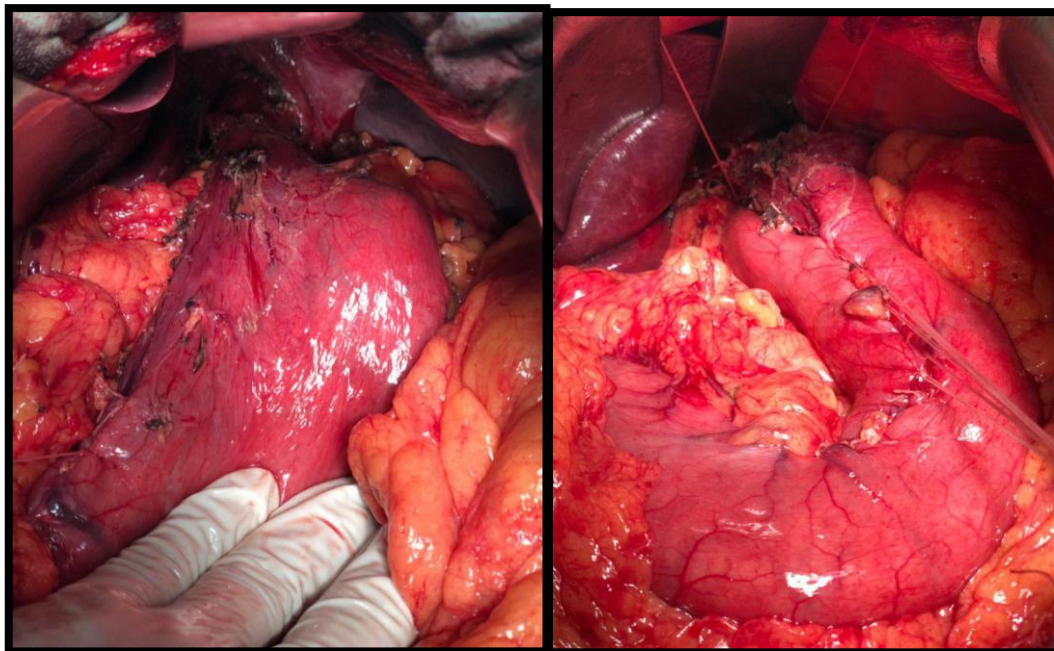


Figure 1. Stages of the operation. Fundoplication according to Nissen-Chernousov and pyloroplasty according to Heinik-Mikulic.

Simultaneous operations were performed simultaneously on 33 patients with concomitant abdominal diseases. Of these, cholecystectomy was performed in 25 (24%) patients, hernioplasty of the anterior abdominal wall in 5 (4.8%) patients, and in 1 (0.96%) patient, a tumor was found in the liver and biopsy material was taken. 2 (1.9%) patients voluntarily underwent surgical sterilization.

In the postoperative period, all patients received standard treatment and were activated early. Patients were discharged on average 2-3 days after the operations. Control EGDFS was performed 1, 3, and 6 months after the surgery. The effectiveness of the operations was the disappearance of complaints, the cessation of the need for PPI drugs, and an improvement in the quality of life of patients.

Conclusions:

- Patients with GPOD in the preoperative period should be thoroughly examined according to the standard, especially endoscopy in a narrow-spectral mode (NBI mode), for early detection of various metaplastic changes in the esophageal mucosa, followed by histological examination. If esophageal adenocarcinoma is detected, patients should be referred to specialized oncology centers for diagnostic verification and comprehensive treatment.
- Mainly good results are given by Nissen's fundoplication, in patients with concomitant diseases, recurrent hernias, and with adhesive process of the abdominal cavity, Tupe's fundoplication is indicated.
- Patients with severe reflux esophagitis with axial duodenal ulcers are indicated for fundoplication according to Nissen-Chernousov with selective proximal vagotomy and pyloroplasty according to Heinik-Mikulic.

LIST OF REFERENCES

1. Arzumanyan A.M. et al. Modern methods of surgical treatment of esophageal openings of the diaphragm (ESO) // "StudNet" No1/2022. P. 701-712.
2. Vasilyev Yu.V. Barrett's Esophagus: Etiopathogenesis, Diagnosis, Treatment of Patients. Difficult patient. No7, Volume 4, 2006, pp. 29-37.
3. Gulyamov O.M., Akhmedov G.K., Makhmudov S.B., Narzullaev Sh.Sh. Features of diagnostics and surgical tactics in diaphragmatic esophageal hernias. // Problems of Biology and Medicine. 2022, No. 3 (136). P. 21-24.
4. Gulyamov O.M., Babazhanov A.S., Akhmedov G.K., Alimov Zh.I., Sherkulov K.U. Diagnostic and therapeutic tactics in gastroesophageal reflux disease. // ISSN 2541-7851. Bulletin of Science and Education No. 3 (106). Part 2. 2021. Pp.62-66.
5. Ziyabreva I.A., Julay T.E. Diaphragmatic esophageal hernias: controversial, unresolved, and promising aspects of the problem (literature review). Upper Volga Medical Journal. 2015;14 (4):24-28.
6. Plaxin S.A., Kotelnikova L.P. Bilateral post-traumatic diaphragmatic hernias. Bulletin of Surgery named after I.I. Grekov. 2015;1:47-51.
7. Timerbulatov M.V. Repeated operations after laparoscopic funduplications // Surgery. N.I. Pirogov Journal. - 2019. - No10. - P. 29-35.
8. Cherkasov M.F., et al. Principles of diagnosis and treatment of Barrett's esophagus. //Modern Problems of Science and Education. 2017. No. 4. P. 45-49.
9. Chernousov A.F., Khorobrych T.V., Experience of using fundoplication and gastroplication in the treatment of reflux esophagitis in cardiac-fundal, subtotal, and total esophageal hernias of the diaphragm. // Surgery News. Volume 27. No 5. 2019. P. 586-594.
10. Grintcov A.G., et al. Causes of unsatisfactory results after laparoscopic hiatal hernia repair. Journal of Research and Practical Medicine. 2021;8 (1):40-52.
11. Gulamov O.M., Babajanov A.S., Ahmedov G.K., Achilov M.T., Saydullaev Z.Ya., Khudaynazarov U.R., Avazov A.A. Modern methods of diagnosis and treatment of barrett esophagus. // Doctor's herald No2 (94) -2020. ISSN 2181-466X. 116-120. DOI: 10.38095/2181-466X-2020942-116-120.
12. Kohn G.P., Price R.R., DeMeester S.R., Zehetner J. Guidelines for the management of hiatal hernia. Surgical endoscopy. 2013;27 (12):4409-4428.
13. Mirzakhitovich G.O., Sultanbaevich B.A., Keldibaevich A.G., Ibodullayevich A.I. & Usmanovich SH.Q. (2021). Diagnostic and treatment tactics in gastroesophageal reflux disease. SCIENTIFIC JOURNAL. ISSN 2541-7851. No. 3 (106). P 2. (62-66).
14. Nikolic Milena, Schwameis Katrin. · Persistent dysphagia is a rare problem after laparoscopic Nissen fundoplication // Surgical Endoscopy, 20 August 2018. 64-71.
<https://doi.org/10.1007/s00464-018-6396-5>.
15. Trepanier M., et al. Comparison of Dor and Nissen fundoplication after laparoscopic paraesophageal hernia repair. Surgery. 2019;166 (4): 540-546.