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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

**SURGICAL TACTICS IN SOME JOINT PATHOLOGIES
OF THE GASTRIC, DUODENAL AND COLON.**

Speciality: 3213.01 – “Surgery”
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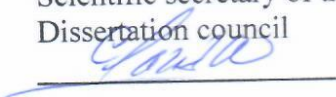
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GENERAL CHARACTERISTICS OF WORK

The actuality of the subject. Although some common gastric and duodenal colorectal (JAP) studies are rarely found in medical sources, such a combination is not yet coded in the International Classification of Diseases (ICD).^{1,2} Numerous studies, even in the case of the two diseases at best, show that the results of the research are scattered.³ Existing diagnostic methods have been shown to be insufficient to determine the level of development of individual diseases in JAP.^{4,5} Therefore, there is a need to improve existing diagnostic measures and develop and apply new diagnostic methods.

Examining the results of the study, it was found that many authors simultaneously avoid complex surgery in 2 or 3 sections of the digestive tract (stomach, duodenum and large intestine), thus avoiding the risk of serious complications.^{6,7} Therefore, there is a great need for the development of organ-sparing, ie low-risk surgical methods in the members of the digestive tract. It can be concluded that there is no algorithmic table for the proper implementation of radical treatment of JAP, in accordance with modern requirements.⁸

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Only in this way can the problem be solved once and for all, otherwise patients will inevitably have to undergo repeated surgeries and become disabled.^{9,11} The above-mentioned problems continue to face the surgeons as today's demand and are waiting for their adequate solution.^{10,12}

Purpose of the research

Proper and effective diagnosis involves improving the outcome of JAP treatment by choosing surgical tactics and applying new invented surgical techniques.

Research tasks

1. Further improvement of diagnostic methods used in JAP determination and development of new diagnostic methods, their application in practice.
2. Investigate and evaluate the clinical course of other members of the community in the postoperative period for only one of the diseases that make up the JAP.
3. Development and application of a new surgical method in the treatment of gastric atony during visceroptosis, the most common variant of JAP.
4. Development of a new classification of diverticula found in all departments of the digestive tract, the development and application of a reliable surgical method that can be easily performed.
5. In order to improve the results of radical treatment of JAP, diagnostics, the correct formulation of instructions for operations and the development and application of an algorithm that can determine the choice of operations to be applied.

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Scientific innovation

1. It was possible to solve the pathogenetic relationship of changes during JAP with the improvement of traditional examination methods and the introduction of new diagnostic methods.
2. The role of JAP in visceroptosis, a new surgical method for the regulation of dysfunction and increased intra-abdominal pressure in both the stomach and large intestine, has been proven (a new patented invention).
3. The newly developed classification leads to the scientific study of diverticular disease, a patented invention, the complete restoration of the mucous membrane from the area of the diverticulum as a result of the operation to remove the diverticulum with corrugated sutures, proves that the diverticulum develops in weak areas.
4. The proposed algorithm provides the correct research of JAP and the programmed scientific basis of modern research in this field.

Main provisions for defense

1. Differentiated application of examinations streamlined and used in practice in JAP allows for the correct design and direction of surgical methods, the correct regulation of the treatment program in the postoperative period.
2. The dependence of intra-abdominal pressure on variable pressure in the digestive tract has been shown to be one of the pathogenetic links in the development of JAP.
3. Satisfactory results of one-moment surgical correction of JAP indicate that the individual diseases that make up the joint have the same pathogenetic source or are related to each other.
4. The JAP deserves to be coded as a nosological unit in the international classification of diseases according to the positive and sufficient results of the researches (the current JAP is not the last coding, it can be updated at any time).

Organization of the dissertation: The results of the research were applied on the basis of the Department of Surgical Diseases III of the Teaching Surgery Clinic of the Azerbaijan Medical University, in the

Department of Surgery of the Clinical Medical Center No. 1 of the Ministry of Health of the Republic of Azerbaijan.

Volume and structure of the dissertation: The dissertation is written in A4 format "Times New Roman" in 14 fonts and 1.5 line spacing in the Azerbaijani language, content, introduction, literature review, research materials and methods, 6 chapters covering their discussion, conclusion, results, practical recommendations are given on 199 pages, including a list of references and abbreviations used. The dissertation is illustrated with 28 tables and 36 figures and 1 algorithm.

20 scientific works published on the topic of the dissertation: 7 scientific articles (4 in the republic, 3 abroad), 9 theses (5 in the republic, 4 abroad); 2 inventions patented by the Eurasian Patent Office (Moscow) on dissertation materials; 3 materials registered and certified by the Intellectual Property Agency of the Republic of Azerbaijan; There was 1 textbook. 2 scientific articles were published in non-co-authors, 5 (including 2 international patents) in periodical scientific publications included in international summary and indexing systems (databases). Based on the results of international scientific events, 9 theses (5 national, 4 foreign) were prepared, 1 poster report (local) was made.

RESEARCH MATERIALS AND METHODS - CHARACTERISTICS OF CLINICAL MATERIAL

The clinical study was conducted in 2015-2019 at the Department of Surgical Diseases III AMU of the Ministry of Health of the Republic of Azerbaijan and the Department of Surgery of the Clinical Medical Center No. 1 of the Ministry of Health of the Republic of Azerbaijan. 110 patients underwent intervention. 68 (62%) of the patients were women and 42 (38%) were men. In addition, in 2010-2014, 30 patients underwent outpatient examination and conservative treatment.

The purpose of the study was to study 50 out of 110 patients for a comparative study of the near and long-term results of surgical treatment for diseases of the stomach, duodenum and large intestine. Thus, in this group of patients, surgery was applied for only one of the co-morbidities, and the treatment was almost palliative. Confirmation

of this situation provides visual evidence of the confident implementation of the set goals and objectives.

Out of 110 patients included in the study, was found 289 pathologies: 25 (8,6%) had SHEOD, 16 (5,5%) had gastric ulcer, chronic duodenal ulcer, 20 (6,9%) had gastroptosis, 4 (1,4%) gastric and 12 b. Intestinal diverticulum, 70 (24,2%) chronic duodenal obstruction, 48 (16,6%) dolichosigma, 23 dolichomegatransverzokolon (8%), 16 coloptosis (5,6%), visceroptosis in 19 (6,6%), diverticulosis of the large intestine in 25 (8,6%) (6 of them with perforation in 2,1%), in 11 (3,8%) colon obstruction with narrowing and 12 gastric atony (4,2%) was found

Thus, 40 to 30 of the patients included in the study underwent anterior cruciate ligament surgery, fundoesophagophrenorrhea, 5 had Nissen, 5 had Shalimov fundoplication, 20 had Bilrot-II gastric resection with Hofmeister-Finsterer modification, and 8 had diverticulum resection, removal of the diverticulum by the Zemlyanov method in 14 patients, Strong surgery in 47 patients, resection of the sigmoid in 26 patients, including perforation in 6 patients, right hemicolectomy in 14 patients, left hemicolectomy in 18 patients, total colectomy in 14 patients, subtotal in 14 patients. operations were performed.

In addition, in 2017-2018, a new surgical procedure, developed by us and patented by the Moscow Eurasian Patent Association, "Surgical treatment of gastric atony" and "Removal of the diverticulum with corrugated sutures" was put into practice. Surgical treatment of gastric atony The removal of 10 diverticula with corrugated sutures was performed in 12 patients.

METHODS. 110 patients were involved in the study. Patients aged 10 to 70 years were divided into 2 groups and the study was conducted. Patients in each of the 2 groups were divided into 3 subgroups. In 60 patients in the main group, JAP was purposefully studied in advance, the elimination of detected pathologies was carried out in 3 directions;

1) with staged surgery;

2) initial surgery is performed, conservative treatment is continued in the next period;

3) At the same time, all JAPs are eliminated by radical surgery, ie JAP in the main group of patients is eliminated by radical treatment measures.

In the patients of the second group, half groups were organized.

1. No protocol research was conducted in the JAP direction, only one of the identified changes was operated on. Other pathologies remained uncorrected, but studies continued.

2. The difference in this group of patients is the confirmation of the presence of JAP before the operation, even if it is not possible to detect it in advance as a result of examinations based on ongoing complaints. In this variant, treatment was possible only with the use of conservative methods.

3. A group of patients whose relative surgical treatment is repeated after the initial operation to initiate the radical removal of JAPs.

Thus, in patients in the control group, the elimination of JAP was carried out in different non-radical ways, and the ways of incomplete elimination and their results were studied.

It is important to note that in the instrumental diagnosis of JAP, it is important to diagnose other organs of chronic pathology, which are detected only during the examination of any member of the digestive system. One of the most important points is that during the application of the same diagnostic method, in addition to accurately recording the changes in each of the neighboring members, it is possible to get an idea, at least indirectly, of the changes in the associated member. An example of this is the fact that when the stomach is shaken, the transverse ileum also descends into the small pelvis in front of it, and its shadow falls.

Diagnosis of changes in the body during JAP by other methods, in addition to instrumental examinations, is a problem that requires research.

For the purpose of diagnosing JAP, if any of the abdominal pathologies are detected during the application of any of the examinations conducted in accordance with our protocol, the

importance of using other diagnostic methods has been confirmed in our study. The results of our observations confirm that the endoscopy and video-contrast X-ray examination of 30 patients in an outpatient setting for 5 years is repeated from time to time.

Studies have shown that existing, traditionally validated instrumental diagnostic methods are sometimes weak in confirming joint pathologies. This was mainly reflected in the diagnosis of diverticula. Uncertainty of the diagnosis also leads to the application of the surgical treatment to be applied on the basis of accidental and incorrect decisions. Therefore, we have tried to develop and apply a new method with a wider range of options, which means that it is important to improve the diagnosis of diverticula, and we have overcome this problem. The simplicity of the new method can reveal information that can lead to the elimination of the diverticulum, not only in the case of joint abdominal pathologies, but in each variant. We became convinced of this in the course of our research. Also, during our research, we have tried to improve and apply existing pathologies, if necessary, and have received reliable innovations. In this regard, we have managed to clarify the issue with a new method of examination of the diverticulum with the Rilsin probe, which we propose in the isolated form of the diverticulum, ie the connection between the body of the diverticulum and the limb can not be detected even with the help of FEGDS.

Patients in the control group were partially diagnosed because their complaints were not comprehensive at the time of the initial application, and other existing pathologies were not identified and continued. In these patients, only the detected pathologies were corrected, and the existing pathologies were revealed on the basis of our protocol and diagnostics in the postoperative period. In order to eliminate in a timely manner the negative impact of the mistake or incompetence on the results of treatment of JAP, we decided to conduct a mandatory diagnosis of all areas of the digestive system.

One of the main conditions that generalizes JAP is the violation of the stability of intra-abdominal pressure. Although the importance of intra-abdominal pressure in acute pathologies of the abdominal organs and the formation of their severity in the data of the studied

medical sources, we have given special attention to the study of this factor in our study, as this factor is not related to chronic joint pathologies. The results confirmed that intra-abdominal pressure plays an important role in the development of some common pathologies of the stomach, duodenum and large intestine. Also, while intra-abdominal pressure is often determined only by cystometry, we have also used gastrometry to determine more accurate readings. For gastrometry, we determined the capacity of the stomach by measuring the length, width, and size of the stomach from back to front during a contrast X-ray examination. This final measurement determines the volume of warm saline to be injected into the stomach during gastrometry.

Thus, it can be concluded that some common pathologies of the stomach, duodenum and large intestine are not simple, but a structure that requires purposeful and special diagnostic approaches. The diagnosis of the individual diseases that make up this body has been confirmed to be a minority for final and appropriate decision-making for treatment. Completion of the solution of the problem occurs after the pathogenetic connection of individual diseases with each other is broken.

The results of JAP diagnostics determine the choice and indications for the surgery to be performed. The conclusions of our research coincide with the views of many authors. Thus, when formulating indications for radical surgical treatment of joint abdominal pathologies, it is important to give preference to simple, easy and quick operations. Postoperative analysis has also revealed the fact that the choice of operations performed during JAP, even if it is partially corrective, can lead to deep complications in the application of a long-term, technically difficult operation. When JAP radical surgery does not allow the general condition of the patient or the severe stage of the joint, as well as the purposeful gradual application of operations at a young age can be considered a way out of the situation.

Our studies have shown that in patients under 25 years of age with visceroptosis, the most common form of joint abdominal pathology,

the removal of the stomach from the large intestine and large fat during resuscitation or hemicolectomy is a step-by-step procedure.

When deciding on the scope of some common pathologies of the stomach, duodenum and large intestine, great importance was attached to the pathological and anatomical changes of the individual pathologies and the severity of the organ dysfunction.

This is especially important in the context of pathological disorders that have developed in neighboring areas and their inability to perform their normal functions. In this case, it was possible to determine the presence of these common neighboring pathologies with the help of instrumental and visual examination methods.

In our study, the sensitivity of endoscopic and contrast-enhanced X-ray examinations was found to overlap in 90% of cases. As noted, comparative diagnostics has been used in our practice, even when the existence of JAP is in doubt. In this way, it was also possible to choose a treatment that does not require surgery, ie conservative treatment of the disease with drugs, diet, nutrition and habits.

When several pathological changes occur in and around an organ, the indications for surgery and their implementation are greatly simplified. When atony with bloating, SHEOD, gastric or duodenal diverticulum, chronic duodenal obstruction, along with indications for gastric surgery, other pathologies can be easily eliminated. We have applied the same approach in our studies to diverticulosis with large bowel movements. However, diverticulosis with an increase in size in any half of the large intestine is an indication for hemicolectomy, while diverticulosis on the other side against the background of normal size is an indication for another simple operation. However, these cases can not be attributed to large-scale pathologies that develop in both the stomach and large intestine, visceroptosis, a multi-faceted complication dangerous diverticulosis. In this case, we have chosen the option of resection of the diverticulosis site, which can be promoted. In order to assess the condition of diverticula located in a healthy area during endoscopy, we conducted an X-ray examination with a contrast agent injected into the irrigator, and obtained the results of the assessment by obtaining images, we found that the correct indication for surgery was established.

Thus, as a result of our research, in order to avoid mistakes in the selection of indications for surgery, in order to avoid postoperative complications, we tried to accurately select patients individually, to eliminate pathologies, and in 96% of cases we achieved good results.

Before talking about any diseases of the common stomach, duodenum and some pathologies of the large intestine, we would like to share our views on the existence of generalized pathogenetic bases in their development during our research. Initially, despite the presence of pathology in both the upper and distal parts of the digestive system separately, the pathological changes developed in the garden apparatus, which generalizes the organs, are unique. It is logical to conclude that if an abnormality is detected in the garden apparatus by members of either of these two departments, there is a requirement not to carry out diagnostics in the other department.

The second point is that if in one section of the digestive system develops atrophy or similar degenerative changes in the muscular layer of the organs, in most cases, these changes are reflected in other departments. We have also identified cases in which these changes develop against the background of endocrine (Hashimoto's) disease in our patients included in the study. In such patients, AntiTPO is elevated to 600 or even 900 units when normal values are below >34 . They develop pathological changes in the stomach and surrounding organs, as well as in the large intestine, such as visceroptosis, polyserositis. In this case, we understand that in any department of the digestive system, if there are disorders in the muscular, motor activity of the limbs, other departments should be properly diagnosed. These cases have been confirmed in 24-30% of the patients involved in the study.

In the 30 years before the study was scheduled, we divided patients into 2 groups in terms of JAP in 30 outpatients; Joint pathologies consisting of JAP and a set of changes occurring only in the digestive tract. The first group of pathologies included changes in the digestive tract, as well as nervous and endocrine effects on the pancreas, liver, small intestine and major body systems. Based on the results, we decided to study the changes in the digestive tract, which is more closely related to it, when planning our study.

We have studied the joint development of diseases of the gastrointestinal tract, stomach, duodenum and large intestine, as well as diagnostic and therapeutic measures. The diseases in question are:

1. Chronic duodenal obstruction
2. Diverticulum of the large intestine
3. SHEOD
4. Gastric or duodenal ulcer
5. Stomach upset, atony
6. Diverticulum of the stomach, duodenum
7. Enlargement and ptosis of the large intestine

Unlike many studies, the results of our study suggest that the possibilities of contrast-enhanced X-ray examination with video recording of the diagnosis of SHEOD are superior to FEGDS, contrast-enhanced CT, or conventional RT. With its help it is possible to more accurately determine the size of the esophageal-gastric passage, cardiac clamp, diaphragm esophageal opening, the size of the angle of reflection, the reflux of gastric contents into the esophagus, the size of the abdominal section of the esophagus and finally the posterior wall. In our study, we roughly determined the method of correction of SHEOD before surgery. Approximately the first is that none of the up to 50 methods of correction of diaphragmatic hernia have been accepted as an absolute treatment to date. Thus, the recurrence rate of any type of correction surgery is up to 50%. This is due to the fact that the appropriate type of operation is not selected in accordance with the existing changes. Therefore, we made the final choice of the operation after the in-operation study. During the operation, after determining the width of the esophageal orifice of the diaphragm, the size of the back-to-front and the degree of the Hiss angle, the type of operation was selected according to the algorithm. As a result of this approach, the outcome of the operation was good in 96% of cases, and the recurrence of the operation was zero. In choosing the operation, we took into account these results, as well as the fact that SHEOD is part of a joint pathology. Taking into account these conditions, we have taken as a basis the implementation of both simple, easy and quick types of operations - crorography and fundoesophagophrenorrhaphy.

Surgical treatment of complications of gastric and duodenal ulcers is still performed by resection. We have also performed gastric resection in our research. However, the difference was that, as in all cases of joint abdominal pathologies, as a rule, during the operation, we must take into account the condition of the esophagus and duodenum, and the importance of diagnosis. Thus, according to many researchers, peptic ulcer disease causes the development of SHEOD and RE in 52% of patients. Gastric resection is followed by SHEOD and RE in 54% of patients. In view of the above, we often take measures to prevent or eliminate diaphragmatic hernia and reflux esophagitis, if any, by performing easy-to-perform, pathogenetically based and reliable anterior or posterior cruciate ligament and fundoesophageal reflux surgeries. Thus, we restore the violation of 3 main factors of the mechanism of closure of the cardiac compression. Also, in 70% of cases of peptic ulcer disease, chronic duodenal obstruction develops in parallel with reflux gastritis, ie jointly. In this regard, in all cases, we take measures against duodenostasis by performing Strong surgery along with gastric resection. In our experience, gastric resections performed in 94% of patients do not lead to a negative situation.

When gastric atony is accompanied by its sagging, the patient's condition worsens unimaginably. As a rule, in such cases, many authors confirm that a relatively radical treatment is performed only by gastric resection, and a palliative result is achieved by forming an anastomosis between the stomach and small intestine, but these operations do not have the desired effect. In accordance with the tasks set before us, we have invented a new surgical method to eliminate gastric atony. Our invention patented by the Moscow Eurasian Patent Union has been certified. The essence of the operation is that the intestinal loop, closed at the end with a double suture, is fixed to the cardiac section of the stomach with sero-serous sutures. In the lower section, an anastomosis is formed with double sutures 3 cm in diameter between the stomach and small intestine. An end-to-side Ru-type anastomosis is formed at a distance of 20-30 cm distal from the part of the intestine with gastroenteroanastomosis, which passes through the stomach with the proximal end of the small intestine. The peristaltic

movements of the small intestinal loop, which are fixed on the stomach, infect the stomach, over time, restore the function of the stomach muscles, and gastroenteroanastomosis provides gastric drainage. Contrast-enhanced X-rays, even in the first weeks after surgery, confirm this. This operation has already been performed on 10 patients and all of them are feeling well.

The proposed operation allows almost all of the food mass to pass through the newly formed anastomosis, while the duodenum has to pass a small amount of food mass, which is not delayed there, ie duodenostasis is eliminated. This is also facilitated by the elimination of Treitz's ligament - Operation Strong and the complete separation of the adhesions in that area.

As a result of our research, we have come to the conclusion that one of the most important reasons for the development of the diverticulum is the rise in normal levels of pressure in the cavity of the diverticulum. It is also important that the pressure in the abdomen, where the limb is located, changes beyond its normal range. The most important thing is how the difference in pressure between the member's abdomen and the abdominal cavity.

The classic surgical treatment for diverticula of the stomach and duodenum is resection of the diverticulum itself or the area where it is located, or the stomach or intestines. Based on his 30 years of experience, Zemlyanoy proposed the operation of transferring his diverticulum to the limb with bag sutures. Removal of the diverticulum by resection creates an artificial mass and the sacral suture squeezes its blood vessels and disrupts its nutrition, it can be exposed to gastric or duodenal juice, leading to ulceration or necrosis, hemorrhage, or inflammation of the sac.

We have invented a new surgical method of diverticulum, referring to the negative aspects of these operations and the tasks we set. The invention was approved by the Moscow Eurasian Patent Office and granted patent authority with the relevant certificate.

This is the essence of the operation to remove the diverticulum with a corrugated suture. In the longitudinal direction of the diverticulum located in the stomach, sutures are placed and closed in the proximal and distal parts of the portal through the muscle layer and

pulled in the opposite direction. In this case, the body of the diverticulum forms wavy layers. After placing the serous sutures through the indented-protruding areas of the diverticulum at a distance of 0.5 cm from the first sutures, they are closed in such a way that the body of the diverticulum is fixed to the cage formed by threads, provided that it does not enter the window area. In this case, the body of the diverticulum is not swollen in the stomach, and the mucous membrane is not separated from the surrounding areas. When the diverticulum of the duodenum, small and large intestine is removed in the same way, the sutures are placed in the transverse direction. Twelve patients were operated on with the proposed new method, and during postoperative endoscopy and contrast radiography, the diverticulum area did not differ from the mucosa of other areas and no pathological deviations were noted. There were no complaints from patients during the study.

Thus, it is safe to say that the proposed new surgical method has significant advantages and will take its rightful place in a wide range of practices.

As a result of our research, it became clear that the diverticula of the large intestine develop in their own way, and the study of numerous sources revealed that the diverticula of the large intestine do not have a comprehensive classification. In order to improve the results of surgical treatment, we have developed a new classification based on the need for a classification that reflects the correct topographic and anatomical view of the diverticula by shape and location.

The generally accepted classification of a diverticulum does not fully reflect its location in the individual limbs, the wall in which the limb is located, the technical ability to perform the operation topographically and operatively, and the ability to avoid various postoperative complications. Therefore, we have tried to formulate a new classification in a way that reflects the location of the diverticulum in the digestive tract, the condition of the joint area, the possibility of successful, simple and avoidance of complications of the applied surgery.

Classification

<p>According to the ratio of the peritoneum</p> <ul style="list-style-type: none"> - Inside the peritoneum - Outside the peritoneum 	<p>Due to the complexity of the anatomical area where the peritoneum is located</p> <ul style="list-style-type: none"> - Located in the free area of the member - Bordered with a neighboring member or surrounded by numerous vascular areas
<p>Due to the detection of the diverticulum gate</p> <ul style="list-style-type: none"> - A clearly distinguishable connection with the door and neck, which is clearly distinguished by the mandible of the member to which it belongs - The door and neck of the diverticulum are undetectable, ie isolated diverticulum 	<p>According to which surgery can be performed</p> <ul style="list-style-type: none"> - Resection of the organ with a diverticulum - Elimination of the diverticulum by the method of Zemlyanoy - The new method we propose is to remove the diverticulum with corrugated sutures without opening the opening. -

The proposed classification largely reflects the fate of diverticula of both the stomach and intestines. Unlike the diverticula of other organs, the large intestine is characterized by the frequency of occurrence of diverticula, manifested in the form of diverticulosis, and most importantly, the frequency of their complications, as well as the presence of dangerous points. Diverticulosis of the large intestine is common to most members of the digestive system. The most common of these is the Sento Triad; If cholecystitis lasts more than 5 years, it is aggravated by SHEOD and colonic diverticulosis. We have included the study of these three in our research.

The choice of surgical method in the treatment of large intestinal diverticula was made individually, taking into account the classification and its algorithmic guiding features.

In the case of uncomplicated diverticula, its location and the size of the foot are clarified. When located on the free edge of the intestine, when the size of the foot is less than 3 cm, the operation to remove the diverticulum with corrugated sutures is performed with transverse sutures and controls the narrowing of the intestinal opening and impaired permeability. Because the size of the diverticulum is larger than 3 cm, intestinal resection was chosen because of the possibility of narrowing of the intestinal opening after the operation. Bleeding and inflammation of the diverticulum, as well as intestinal resection should be chosen unequivocally if the likelihood of perforation increases. Diverticulosis of the large intestine in the elderly, except in cases of suspected perforation; Conservative treatment can be chosen in case of inflammation, complications with bleeding. In case of perforation of the diverticulum, followed by aggravation of peritonitis, there is no choice but to end the operation with a stoma and drain the abdominal cavity.

Based on our results, we conclude that diverticula aggravated by perforation and peritonitis found their place in patients many years before emergency surgery. This was reflected when the results of the instrumental examination protocols of patients in previous years and the results of repeated examinations in the postoperative period were compared. Our research has also shown that JAP has been present in these patients for a long time. The main reason why such patients are not involved in timely surgical treatment is the incompetence of doctors and the belief that they can overcome the problem in this way, even if there is long-term constipation, preferring conservative treatment without choosing the right way. The same can be said about complications such as strangulation intestinal obstruction caused by additional loops, necrosis, perforation of the twisted intestinal loop, and finally advanced peritonitis caused by dolichocolon of the large intestine, especially when dolichosigma predominates. It is understood that in the presence of diverticular and dolichocolonial pathologies of the large intestine, it is necessary to apply surgical measures in time, if chronic constipation leads to the absence of defecation in patients for weeks.

It would be a mistake to think that only hemi or enlarged, and finally subtotal or total colectomy surgeries can radically solve the problem of joint pathology when gastric emptying, which leads to chronic constipation, is confirmed. Because the corrective measures taken in the intestines are no longer able to solve severe disorders of the stomach.

Thus, based on the results of research, we can say with confidence that 64-92% of some joint pathologies of the stomach, duodenum and large intestine are caused by the same cause, but these causes can also lead to the development of various surgical diseases of the digestive system.

The choice of tactics for the treatment of the most common joint pathologies is unique. Stomach and duodenal sagging during visceroptosis, which has a special place in some common pathologies of the stomach and duodenum with large intestine, causes gastric atony and chronic large intestinal obstruction. The tactics of surgical removal of this condition are revealed by different solutions in the research of different authors. We have focused on solving the problem mentioned in the methods of our research in 3 variants. In patients under 25 years of age, the problems were solved step by step. In the first stage, when performing hemicolectomy on the large intestine, the stomach is relatively free with the full opening of the mesocolon and omentectomy. With the opening of Treitz's ligament we are implementing measures to improve the evacuation of duodenal contents. In this group of patients, if there is a slippery hernia of the esophagus of the diaphragm, correction is performed with crourography and fundoesophagophrenorrhaphy. Thus, the operation is over. Contrast-enhanced X-ray examination at various postoperative periods confirmed the return of the stomach to its normal anatomical position. However, this is not always the case, and in patients with visceroptosis from childhood, as well as the co-development of diseases such as rheumatism, numerous adhesions in the abdomen, degenerative changes, the stomach can not return to its original size. This can also occur during disorders of the endocrine system. Therefore, the application of one-time radical surgical treatment, rather than step-by-step treatment for such patients, is the right choice.

Patients in the second subgroup of the main group underwent primary surgery on the large intestine, and in the postoperative period we tried to improve the condition of patients by applying conservative treatment. Although 70% of patients in this group had a positive result, the other 30% did not. Therefore, we performed gastric resection in the second stage in patients whose conservative treatment did not yield positive results. These patients were over 30 years of age. After the second operation, the patient's condition completely improved in 94% of cases. Patients in the third subgroup were completely corrected for the joint pathologies initially detected. In the presence of visceroptosis, duodenal or gastric diverticulum SHEOD pathologies, crorography, fundoesophagophrenorrhaphy, the proposed new method - the elimination of gastric atony, as well as the proposed new method - the removal of the diverticulum with corrugated sutures and hemicolecotomy were performed. In the first postoperative period, patients felt well, and in 96% of cases, they reported multiple complaints.

Thus, radical treatment of JAP can be considered sufficient if the correction of diseases detected as a result of careful diagnosis from the moment of suspicion of joint abdominal pathologies is carried out not as a retail, but as a whole. The analysis of the results of simple surgical treatment suggests that the complex treatment measures applied are a factor that can increase the chances of radical surgical treatment of joint abdominal pathologies. One of the important points is to clarify all the indicators that can affect the results of treatment and increase the risk factors for complications.

Thus, it could be concluded that the final document of our research is ready. However, the characterization and accurate assessment of intra-abdominal pressure, which plays an important role in the development of JAP and has a special place in our research, would be overshadowed. In addition to cystometry, we also performed gastrometry to more accurately assess intra-abdominal pressure.

Opinions differ on the drainage of the gastrointestinal tract after surgery in both the proximal and distal sections. 50% of researchers are against it, and the other 50% are in favor of its implementation. If the JAP and intra-abdominal pressure are high, it is necessary to vote

in favor of this measure. In our research, in almost all our practical work, we have focused on the drainage of the digestive tract. After all operations on the stomach and duodenum, we keep a transnasal tube for decompression in the stomach. From the first days of surgery, the patient takes alkaline mineral water (Borjomi) orally, stomach acid is neutralized, and then actively and constantly absorbed by a probe. In this case, the wound area in the stomach itself or in the stomach is protected from the effects of acid, and as a result of the already existing atony in the stomach, the accumulation of contents is prevented. On the other hand, drainage with a probe helps to eliminate the increased pressure in the stomach. In addition to keeping the probe in the stomach during the operation, we place a thin-diameter feeding probe up to 50 cm in the opening of the small intestinal loop through the anastomosis areas. Enteral feeding of the patient with this probe begins on the 2nd day of surgery. This probe also balances the excess pressure that can build up in the small intestine. As a result of the activity of probes inserted into the stomach and small intestine, the patient recovers quickly, and the causes of anxiety are eliminated. At the end of the 5th day of the operation, the patient's nasogastric tube is closed, 2 hours after the mouth is given a warm saline solution to the capacity of the stomach, the tube is opened and connected to the device for gastrometry. In this case, the readings of the device and the amount of solution returned are measured. Our studies note the normalization of intra-abdominal pressure and the return of a very small portion of gastric fluid. In many cases, it was not possible to measure blood pressure because the contents never returned from the stomach. In such cases, the probes are removed and the patient is advised to eat orally. This indicates that there is no stagnation in the stomach, the transfer of contents to the intestinal tract has become normal, thus proving the effectiveness of drainage of the proximal sections of the digestive tract and enteral nutrition.

Intubation of the intestinal opening through a proximal tube from the anastomosis site during colon surgery also reduces the risk of anastomotic ulcer and ensures that intestinal contents are removed without contact with the wound. Intubation tube and intra-abdominal drainage help to normalize intra-abdominal pressure. Cystometry

performed 3-4 days after the operation proves that the intra-abdominal pressure is within the normal range. Diagnosis of patients at different postoperative periods indicates that the disease has already disappeared, and the fact that the examination is within the norm and the elimination of complaints indicates that the patients have already recovered.

The study of the general results of our research proves that the formation of JAP occurs with the development of two variants. Analysis of the indicators of patients in the main group allows us to say that joint abdominal pathologies, for example, visceroptosis, originate from the same source. In this group of patients, correction of all developed pathologies is required, otherwise the radicality of treatment remains unresolved. This allows patients to be re-operated. The second developmental option is the way confirmed by the results of studies conducted on patients in the control group. If any pathology in the digestive tract and associated organs lasts more than 5 years, it can lead to the development of other diseases (SHEOD and diverticulosis of the large intestine), resulting in the formation of JAP. When any pathology is found in this group of patients, its correction is carried out without taking into account other pathologies. Although patients feel well for a while, they are forced to return to the doctor. Only then is it understood that the joint pathology already exists, and in most cases, the need for repeated surgery arises. In our study, a similar condition was confirmed in 45.5% of patients.

A common cause that unites both developmental options is the imbalance of intra-abdominal pressure. In both cases, this factor plays an important role in the pathogenetic development of the pathology, contributes to the thickening of the complaints and morbidity of patients until treatment. This is one of the most important causes of complications in the JAP before and after surgery.

Thus, at the end of our research, we can say with confidence that in addition to coping with the set goals and objectives, we will create new diagnostic and treatment methods, along with the development of the right choice of diagnostic and treatment methods, which are important in choosing treatment tactics of JAP, that have proven its application to practical surgery. Based on this, we have provided

surgeons with an algorithm table that reflects the effective use of JAP diagnostics and treatment.

RESULTS

1. Improved and developed new diagnostic methods play a key role in the detection and accurate assessment of individual diseases, which account for 96% of JAP. Only a preoperative and postoperative diagnosis of any of the members of the joint, as well as corrective surgery, was performed without examination of the other organs, and the results obtained in 64% of patients at the end of treatment proved to have led to a wrong decision [5,8,11,14].

2. Pathology found in one of the organs of the digestive tract has developed in other areas, but in 94% of cases, the shadow disease occurs. Therefore, the study of joint pathologies in chronic diseases of the gastrointestinal tract should be considered one of the important conditions [3,4,6,12,18].

3. The application of the new surgical method of gastric atony during visceroptosis and in other cases is the most optimal and effective option in eliminating the disease in 95% of patients [16,19].

4. The removal of diverticula, one of the members of the JAP, by our patented invention diverticulum with corrugated sutures (surgical treatment) differs with good results in 96% of patients. Good results can be obtained in more than 80% of cases when the diverticulum treatment program is implemented in accordance with the newly developed classification [1,10,17].

5. The radical treatment of JAP is further improved by the application of a prognostic algorithm table, which includes a developed diagnostic and treatment program, providing radical treatment in 96% of patients [2,7,9,13,15,20].

PRACTICAL RECOMMENDATIONS

1. In order to further streamline and refine the results of JAP diagnostic methods, abdominal USM, CT, esophageal, gastric, duodenal contrast X-ray, endoscopic examination, irrigography and colonoscopy, as well as average intra-abdominal pressure, both cysto

and gastrography In the case of difficult diagnosis of the diverticulum, it is advisable to perform a contrast X-ray examination with a thin probe inserted into the opening of the diverticulum of the stomach, duodenum and colonoscopy with a Rilsin probe.

2. Among the methods of surgical treatment of gastric atony, along with resection, gastroenteroanastomosis, a new surgical method of gastric atony can be applied.

3. As the most optimal option for surgical treatment of the diverticulum, the operation of removal of the diverticulum with corrugated sutures can be widely used in practical surgery as a reliable method with positive results and easy execution technique.

4. In the radical treatment of JAP, along with the application of surgery for the relevant diseases in individual organs, for active decompression of the upper part of the digestive tract 18-20- diameter, for enteral feeding and decompression small-diameter transnasal tube inserted into the small intestine, after large bowel surgery, intubation of the proximal cavity from the anastomosis and drainage of the abdominal cavity can also be widely used because they serve to normalize intra-abdominal pressure.

5. Radicality is further enhanced when the diagnosis and treatment of JAP refers to a newly created algorithm table.

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ABBREVIATIONS

- SHEOD - slippery hernia of the esophageal opening of the diaphragm
IAP - Intra-abdominal pressure
JAP - Joint abdominal pathologies
RE - Reflux-esophagitis

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