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The Choice Of The Operation Method For Combined Ulcer Of Gaster And Duodenum

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ABSTRACT

The 30-year experience of surgical treatment of 354 patients with combined gastric and duodenal ulcers is presented (type II ulcers according to Johnson H.D., 1965). Every third patient (32.8%) had ulcers "difficult" for resection of the stomach, gigantic in size, high in localization, multiple in number and their combinations. Recent features of the typology of ulcers dictated the choice of method and volume of gastric resection, performed, as a rule, in an atypical version.

Postoperative mortality after emergency operations was 13.04%, and after planned - 2.7%.

KEY WORDS: *surgery, ulcer, gaster, duodenum, genetal surgery*

INTRODUCTION

Peptic ulcer of the stomach and duodenum occupies one of the leading places in the structure of diseases of the gastrointestinal tract, sometimes causing complications that threaten the patient's life and disability [1,3,4,6,10,14].

Combined gastric and duodenal ulcers account for about 25% in the structure of gastric ulcer lesions [8,9,18,19]. Many authors note the aggressiveness of the course of combined ulcers, frequent exacerbations, a tendency to surgical complications (bleeding, stenosis, perforation), malignancy, and resistance to conservative treatment, which determines the indications for early surgical treatment [2,7,8,9,12,13, sixteen].

Meanwhile, literature devoted to combined gastric and duodenal ulcers, as a rule, has a descriptive character and is based on a small number of observations. In addition, the choice of the optimal method of operation [8,9,11,15,17] for combined gastric and duodenal ulcers, which determines the relevance of this problem, remains debatable to date.

The aim of our study was to improve the results of surgical treatment of patients with combined gastric and duodenal ulcers.

MATERIALS AND METHODS

We conducted a retrospective analysis of case histories of 354 patients with combined gastric and duodenal ulcers (type II stomach ulcers according to Johnson HD, 1965) [19], (281 men and 73 women), which accounted for 23.3% of the total number of people with stomach ulcers and 4.3% of people with duodenal ulcers. Among all patients with peptic ulcer of the stomach and duodenum, 3.7%. The average age of the patients was 47.5 ± 1.7 years, the duration of the ulcerative history was 9.63 ± 1.4 years. A history of bleeding was in 18.9%, perforation of gastroduodenal ulcers in 11.9% of patients.

76 (21.6%) patients were hospitalized in the clinic due to a bleeding ulcer, 0.6% of patients with perforation.

All patients, except 23 urgently operated patients (bleeding in 21 and perforation in 2), underwent a comprehensive examination - X-ray, endoscopic, study of the secretory function of the stomach, targeted biopsy of stomach ulcers, the study of the nature of these ulcers on resected stomach preparations.

The nature of gastric secretion was studied by the fractional probe method using the maximum Kay histamine test and insulin Hollander.

In planned surgery of combined gastric and duodenal ulcers in 70 patients, a program of multilaser (combined, sequential, combined) irradiation (PL) was used using high and low energy radiation sources [5].

RESULTS AND DISCUSSION

In order to develop rational tactics for surgical treatment of patients with combined gastric and duodenal ulcers, at the first stage of work, we studied the typological features of combined ulcers, which in our opinion will play a significant role in the choice of the method of operation and treatment outcomes. The basis for studying the features of combined gastric and duodenal ulcers was the small number of

personal observations of the authors [9, 10], their fragmentation and the inconsistency of opinions on the treatment tactics of such patients, including surgery.

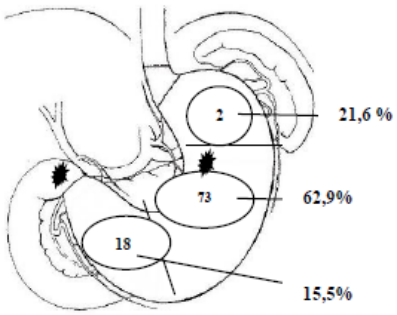
According to the results of our 30-year observations, 23.3% of patients, i.e. every fifth patient operated on in connection with a gastric ulcer, there is a likelihood of a duodenal ulcer (active, in the stage of scarring, stenosing, cicatricial deformity of the output section of the stomach).

As our observations show, the clinical course combined with duodenal gastric ulcers is variable. A vivid picture of the stenosis of the output section of the stomach and the occasional detection of a chronic gastric ulcer is possible. On the other hand, against the background of a relatively favorable course of the disease, examination reveals chronic stomach ulcers (one of its "difficult" forms) and duodenal ulcers without stenosis.

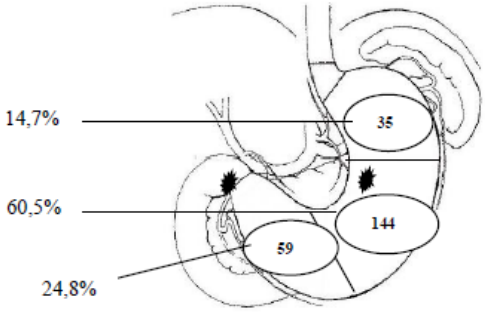
Thus, our observations clearly illustrate the possibility of the existence of two variants of combined gastric and duodenal ulcers. The first is the presence of a chronic stomach ulcer (s) combined with uncomplicated stenosis of a duodenal ulcer. We designated it as IIA type. The second option is the presence of a chronic stomach ulcer (s) against a background of stenotic (varying degrees) duodenal ulcer (type IIB).

We conducted a comparative assessment of the features of localization of ulcers of IIA and IIB types. Fig. 1

Fig. 1 Localization of stomach ulcers of II-A and II-B types.



Type IIA ulcer (n = 116)



Type IIB ulcer (n = 238)

Comparing the frequency of localization of chronic gastric ulcers of types IIA and IIB, it should be noted that every fifth patient with type IIA ulcers was "high", and in type IIB ulcers of the lower third of the stomach were more common.

Based on the probability of the influence of stenosis of duodenal ulcers, its degree on the localization of ulcers, we conducted a comparative assessment, reflected in Table 1.

Table 1. The dependence of the localization of ulcers of type II B on the degree of stenosis of duodenal ulcers

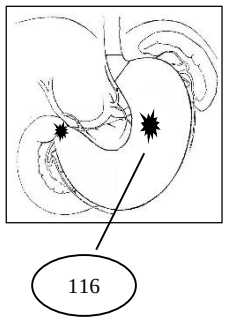
Степень стенозирования дуоденальной язвы	Всего*	Локализация язв желудка II Б типа		
		Верхняя треть	Средняя треть	Нижняя треть
Компенсированный	62	9 – 14,5%	45-72,6%2	8-12,9%
Субкомпенсированный	101	15-14,9%	61-60,4%	25-24,7%
Декомпенсированный	68	10-14,7%	30-44,1%	28-41,2%
Итого	231*	34-14,7%	136-58,9%	61-26,4%

Note: * - 7 patients out of 238 with ulcers of type II B were operated on an emergency basis, which did not allow to determine the degree of stenosis

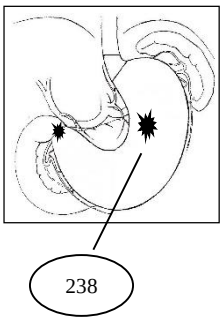
The following pattern was revealed: the higher the degree of stenosis, the more common were stomach ulcers in the middle and especially in the lower third of the stomach.

Further, we considered it appropriate to conduct a comparative assessment of the typology of ulcers of types IIA and IIB. Fig. 2

Fig. 2. Features of the typology of ulcers of IIA- and IIB-types.



29.3% - history of complications - 31.5%	
19.8% - bleeding - 18.5%	
9.5% - perforation - 13.0%	
% - complications at admission -%	
31.9% - bleeding - 16.8%	
43.2% -% of operations at bleeding height - 17.9%	
36.2% - penetration of gastric ulcers - 38.8%	
11.2% - penetration of duodenal ulcers - 39.1%	
37.0% - “difficult” forms of stomach ulcers - 30.7%	
4.3% - “difficult” forms of duodenal ulcers - 8.0%	
4.3% - malignant transformation - 1.7%	
6.6 years - ulcerative history - 11.1	
13.8% -% of people over 60 years old - 20.2%	
6.9% - hyperantravagal syndrome - 9.2%	



Taking as a basis the absence or presence of stenosis of duodenal ulcers with type II gastric ulcers, and accordingly, identifying two variants of their course, we found a number of significant differences between them.

A high penetration rate (39.1%) of duodenal ulcers with

IIB type, which in combination with 100% stenosis causes their differences. The older age of patients (persons over 60 years old was 20.2%, i.e., every fifth) and a longer ulcer history (11.1 ± 0.6 years) than that (6.6 ± 1.3 years) with type IIA, it is supported by the assumption of the secondary nature of gastric ulcers that arose against the background of stenosis of duodenal ulcers.

The figures of complications in the compared groups indicate a more severe course of the disease: in type IIA it was 154.2%, in type IIB it was 175%. This is clear evidence of the particular complexity of the clinical course of both types of stomach ulcers of type II.

Next, we would like to dwell on the role and place of the “difficult” forms of stomach ulcers and duodenum in the clinic of combined ulcers. During surgery, in 32.8% of patients with combined gastric and duodenal ulcers, so-called “difficult” gastric ulcers were detected, i.e. every third had problems associated with radical intervention (table. 2)

More often, such ulcers were a find when performing emergency interventions for ongoing bleeding.

Of the total number of “difficult” forms of stomach ulcers (there were 116), giant (35.3%) prevailed, then “high” and multiple (12.9%). In 19% of cases there was a combination of them.

In |Table 2 we present data indicating a different specific gravity of “difficult” forms of stomach ulcers depending on the selected subgroups of type II ulcers.

Table 2. The frequency of "difficult" stomach ulcers

виды «трудных» язв желудка	группы сравнения		
	II-А тип (n=116)	II-Б тип (n=238)	в среднем
Гигантские язвы желудка (n=41)	11-9,5 %	30-12,6 %	35,3 %
Проксимальные язвы желудка (n=38)	16-13,8 %	22-9,2 %	32,8 %

Множ. язвы желудка (n=15)	7-6,0 %	8-2,9 %	12,9 %
Их сочетание	9-7,8 %	13-6,9 %	19 %
Итого	43-37,1 %	73-30,7 %	116-100 %

As can be seen from table No. 2, with IIA type, “high” gastric ulcers were more often found, while with IIB type more often giant ulcers.

Thus, with ulcers of types IIA and IIB, the frequency of “difficult” forms of ulcers was the same (in every third patient), which, of course, made it difficult to perform surgical interventions.

According to the results of studying preparations of the resected stomach, it was revealed that the incidence rate of chronic stomach ulcers in type IIA was higher (4.3%) than in type IIB ulcers (1.7%).

Summing up the study of the features of "difficult" forms of chronic ulcers of the stomach of type II, we want to emphasize once again their pronounced polymorphism. The preferred location of type II stomach ulcers is its average third (61.3%). “Difficult” forms of chronic stomach ulcers were more often (51.7%) localized in the upper third, making it difficult to diagnose them and perform surgical interventions in a timely manner. During operations at the height of ongoing bleeding or its recurrence, the surgeon is more often confronted with localization of ulcers in the middle third of the stomach (60.9%), and in cases of “difficult” ulcers in almost every second patient, they are located in the proximal stomach, which also complicated the situation.

The highest frequency of penetration of gastric and duodenal ulcers was localized in the upper third of the stomach (83.9%), then in the lower third (61.1%) and in the middle third (53.2%).

“Difficult” duodenal ulcers with type IIB ulcers, unlike type IIA ulcers, were 1.6 times more likely to have “low” (postbulbar) ulcers during surgery. It is the latter that have a tendency to stenosis. Against the background of a long history of stenosing (81.1%), the occurrence of gastric, i.e. type IIB ulcers, based on the concept of antral stasis (dragstedt).

The study of the dependence of the state of gastric secretion on the nature of type II gastric ulcers showed that type II stomach ulcers, "difficult" type II ulcers, as well as type II stomach ulcers without "difficult" ulcers, occur against a background of decreased or normal secretion, respectively, 90.1 %, 95.2%; 88%

We studied the relationship between the level of secretion and the localization of type II gastric ulcers. It was found that with localization of ulcers in the upper third, the percentage of patients with hyposecretion is high, and with localization of ulcers in the middle third of the stomach normosecretors were noted in 65.4% of patients. Among patients with localization of ulcers in the region of the lower third of hypersecretors, there were more - 51.7% (of 29 of all hypersecretors with 15 ulcers of the lower 1/3) versus hypo- and normosecretors, respectively 20.0% and 23.1%.

Thus, a comparative analysis of the characteristics of type II gastric ulcers revealed a significant polymorphism of gastric ulcers (different localization, tendency to malignant transformation, a significant proportion of "difficult" ulcers) and duodenum. In our opinion, particular attention should be paid to such a complication as stenosis of various degrees: from sub- to decompensated disturbances of evacuation from the stomach when choosing the method and scope of operation for combined gastric and duodenal ulcers.

In an emergency, 23 patients with type II stomach ulcers were operated on (bleeding - 21, perforation - 2). Radical operations were performed in 21 patients and in 2 observations of the intervention they limited themselves to a wedge-shaped excision of a bleeding ulcer in the middle third of the body of the stomach. Moreover, 11 of 23 patients had “difficult” stomach ulcers. Postoperative mortality was 13%. Causes of death: bleeding from varicose veins of the esophagus after surgery (2), acute cardiovascular failure (1).

In planned surgery in 70 patients, we used the program of multilaser radiation. It should be noted that the use of an AIG laser in a defocused mode made it possible to process ulcerative infiltrates bloodless and quite efficiently, which are reduced by 1.5-2 times at the time of exposure without destruction of surrounding tissues.

The greatest opportunities were opened during laser-coagulation of suspicious lymph nodes in the affected area of the stomach. With the introduction of a conical sapphire tip deep into the lymph node and processing it in the 15W / 2sec mode, it allows almost instantly destruction of the lymph node with a decrease in its size by 2-3 times without the risk of bleeding from surrounding vessels.

When determining the volume and nature of planned operations in individuals with type II ulcers, the localization of ulcers, the number, presence of their “difficult” forms, data of targeted biopsy, emergency intraoperative biopsy were taken into account.

Gastric resection in atypical variants (ladder, tubular) was performed in% of cases, and was due to the presence of "hard" ulcers for resection, namely high (cardiac, subcardial) localization, gigantic in size and multiple in number (two or more) ulcers .

In case of ulcerative lesions in the area of the antrum of the stomach, exit from it, the pyloric ring and the suprathoracic zone, it was possible to perform a typical resection in a classical volume, i.e. 2/3 of the organ.

Scheduled operations were performed on 331 patients with type II ulcers.

Table 3. The nature and extent of elective surgery for combined ulcers of the stomach and duodenum

Характер операции	Число операций	
	Всего (n=331)	При «трудных» язвах желудка (n=110)
Резекция желудка по Бильрот-1	154 (5)	47
Наложение терминолатерального анастомоза	76	25
Резекция желудка по Бильрот-2	97 (10)	35
Проксимальная резекция желудка	1	1
Гастрэктомия	3	2

Note: the number of operations with vagotomy is indicated in parentheses

The presence of a hyperantrovagal type of secretion required the addition of gastric resection with bilateral stem vagotomy in 15 (4.2%) patients.

Given the variety of situations that arise during surgery, the results of targeted gastrobiopsy were considered fundamental when choosing the scope and technique of surgery.

Based on the data of gastrobiopsy, gastrectomy (3) and proximal resection of the stomach (1) were performed in 4 cases. These were patients with giant stomach ulcers located in the upper third of the organ.

Concluding the resection of the stomach (typical or atypical), we sought to preserve the natural passage of food along the duodenum. The proportion of such operations (according to Billroth-1 - 154 or using one of the variants of applying the termolateral anastomosis - 76) amounted to 69%, including 65.5% for "difficult" stomach ulcers.

Large periulcerous infiltrate, in some cases of “low” (post-bulbar) ulcers, gigantic in size and, most importantly, the presence of severe forms of chronic disorders of duodenal patency limited the performance of stomach resection by Billroth's first method, forcing him to complete surgery by his second method.

The use of the PLA program allowed to reduce the number of insolvency of the anastomoses and stump of the duodenum from 3.8 to 1.4%, purulent-inflammatory complications from 4.6% to 2.8%, the number of relaparotomies from 4.2% to 1.4%, and reduce postoperative mortality by more than two times.

Postoperative mortality in elective surgery of type II stomach ulcers was 2.7%. Causes of fatal outcomes: inconsistency of the joints of the anastomosis (6) and total pancreatic necrosis (3). All patients underwent relaparotomy, which were ineffective.

CONCLUSION

1. According to operational verification, chronic stomach ulcers of type II, i.e. combined with duodenal, found in 3.7% of patients operated on due to complications of gastric and duodenal ulcers, including 4.3% among duodenal ulcers and 23.3% of gastric ulcers.
2. The greatest difficulties are gastric ulcers of type II of "high" localization, the frequency of which is 16.9%. They are characterized by a high degree of penetration (83.9%), evacuation disorders due to stenosis of duodenal ulcers (60.7%), malignant transformation (7.1%), a high proportion of “difficult” forms (39.3%).
3. The choice of method for the surgical treatment of type II ulcers should be based on a set of criteria for their typology: localization, size, number of ulcers, the presence of "difficult" forms of ulcers, penetration, signs of malignant transformation. In this situation, it is necessary to perform atypical resections of the stomach (ladder, tubular, distal subtotal, proximal subtotal).
4. The secretory activity of the stomach in ulcers of type II is not the main one in the choice of method and volume of operation, with the exception of cases (4.2%) of the hyperantrovagal type of secretion. In such a situation, if distal resection of the stomach is possible, it is necessary to supplement it with a bilateral bilateral vagotomy.
5. Given that combined gastric and duodenal ulcers is a complicated variant of the course of peptic ulcer, and as a rule, it is accompanied by a combination of several complications, which determines the high percentage of complications and postoperative mortality in patients with this pathology, it is advisable to concentrate and treat them in specialized centers and departments.

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