

Surgical Tactics for “Difficult” Duodenal Ulcers

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Abstract:

Duodenal ulcer (DU) continues to this day to remain an urgent problem in surgical gastroenterology. Despite many years of experience in the treatment of ulcer and the constant improvement of its methods, many issues still remain controversial and not fully resolved. Throughout the 20th century and to the present day, the tactics of surgeons and their attitude to the issues of its pathogenesis have been repeatedly revised. Evidence of this is the fact that this problem has not left the pages of periodicals to this day; the production of monographs has increased significantly; congresses, symposia and conferences are dedicated to it.

INTRODUCTION

Despite the successes achieved, in planned surgery for ulcers, gastrectomy (GC), according to statistics from various years, is accompanied by a fairly high mortality rate - 4-6%, which, for a perforated ulcer - 3.5-8%, for bleeding ulcers - 15-34 %, with pyloroduodenal stenosis (PDS) - 6-19%, with penetrating ulcers - 8-15%. In addition, they develop post-gastroresection disorders, which cause disability in 10-40% of cases: - in the first year - in 20-30% of those operated on and in 10-15%, at a later date.

In our opinion, it is possible to rectify this situation by specifying the concept of "difficult" digestive tract disorders, establishing the typological characteristics of clinical course and functional state of the stomach, and further improving the techniques and technical procedures of operations.

The aim of the research

Improving the results of surgical treatment of peptic ulcer in “difficult” duodenal ulcers.

The research material and methods

When performing surgical interventions for duodenal ulcers, surgeons often encounter significant technical difficulties. Such situations usually arise with postbulbar, callous, giant, penetrating and “mirror” ulcers of the duodenum. At the same time, there is a high incidence of damage to vital surrounding organs and, accordingly, complications and mortality. Researchers call such ulcers “difficult to remove” or “difficult.”

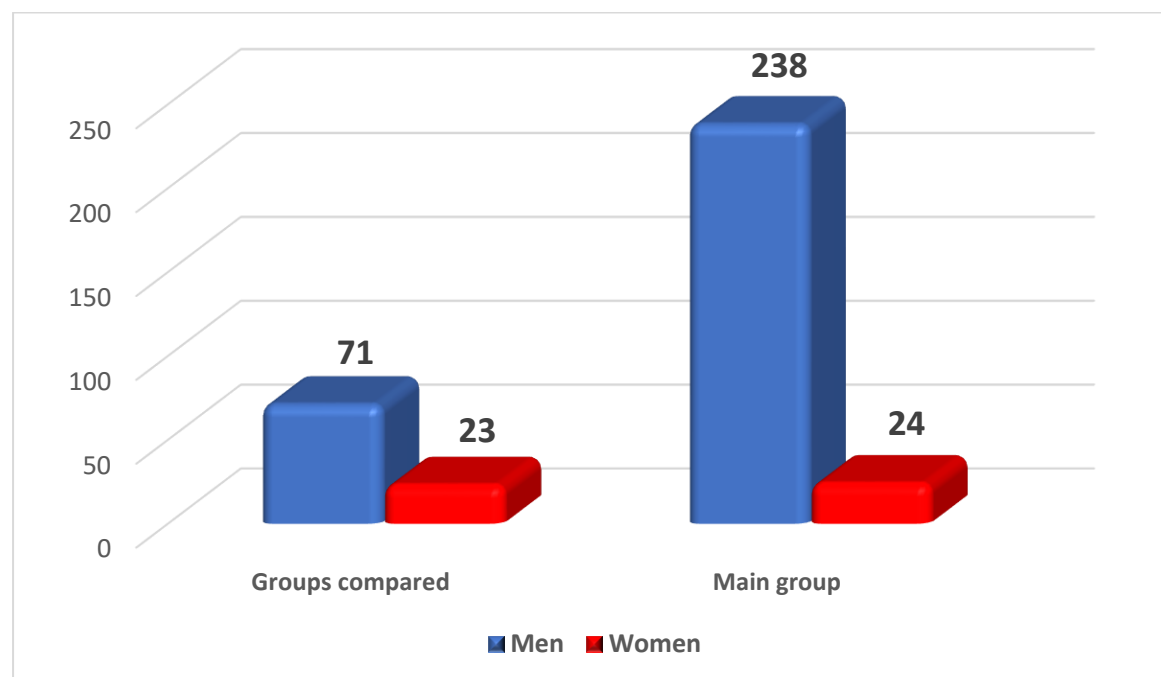
During the period from 2001 to 2020, 1567 patients were operated on for duodenal

ulcers at the Department of Surgical Diseases and Urology of Andijan State Medical Institute. At the same time, “difficult” DUs were diagnosed in 494 (31.5%) patients. Of these, 364 (73.7%) patients were operated on as planned and 130 (26.3%) as emergency. Of the 364 patients with “difficult” DU, 102 underwent vagotomy with DU. Due to the fact that the surgical tactics for those operated on planned and emergency basis are different, patients operated on urgently were not subject to scientific analysis. Since in the last ten years Only resection methods are performed and there is no possibility of comparing the results; the subject of this study was 262 patients with “difficult” DU who were operated on in a planned manner.

To determine the typological features of the clinical course, as well as the secretory and motor-evacuation functions of the stomach, we carried out a scientific analysis of “difficult” DU (262) in comparison with duodenal ulcer with the uncomplicated course of the disease (94), i.e. in the absence of “difficult” DUs. As can be seen from Fig. 1.

To simplify the presentation of the material, we conditionally divided into 2 groups:

- with “difficult” DU – main group (262 patients);
- with an uncomplicated course of ulcer – comparison group (94 patients).

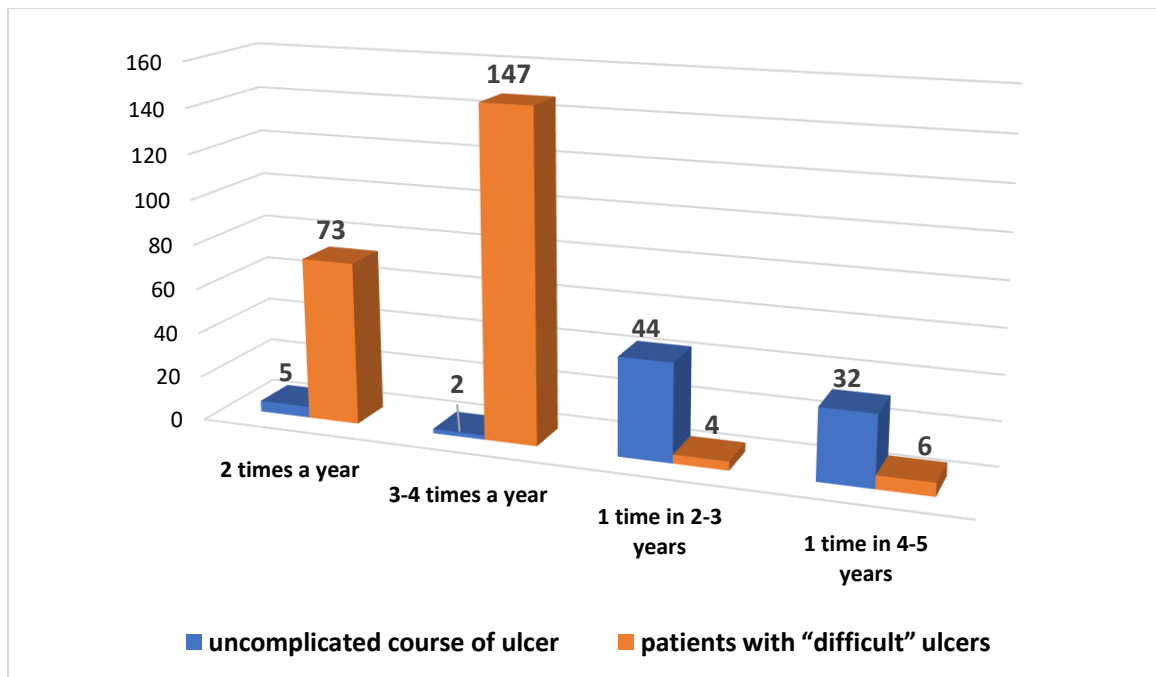


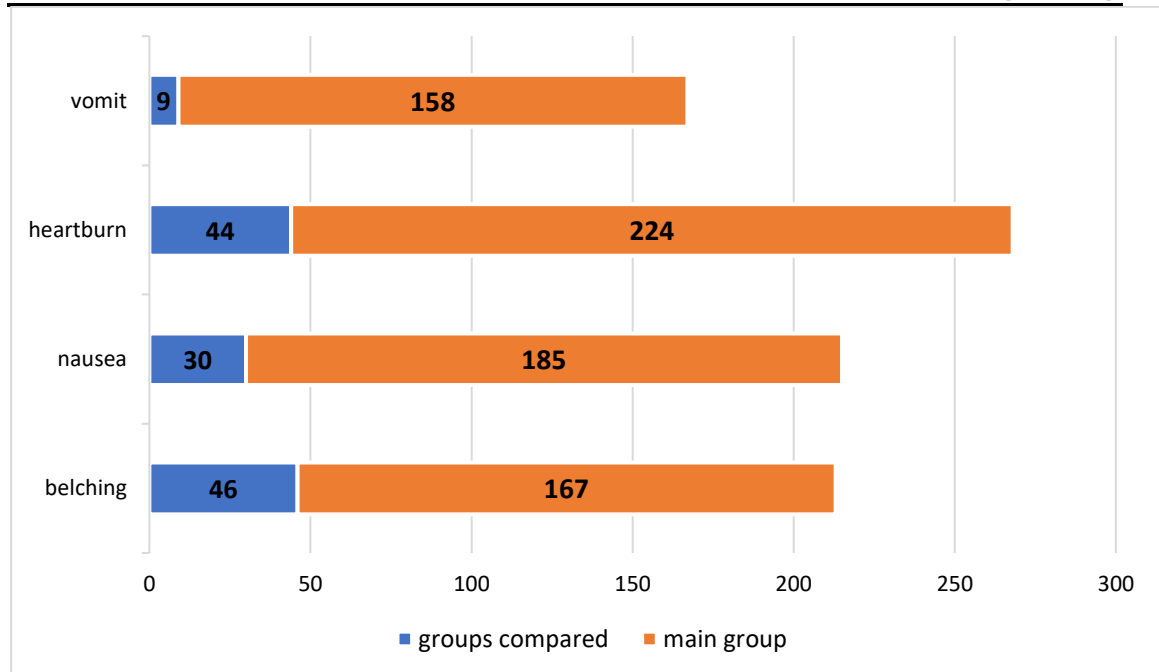
As can be seen from Table 1, in the comparison group the main contingent consisted of patients with a duration of ulcer history up to 6 years - 76 (80.9%), while in the study group, the duration of an ulcer history was 11-15 years - 213 (81.2%) patients. It should be noted that in the study group, a duration of ulcer history of 16 years or more was diagnosed in 36 (13.9%) patients, while in the comparison group such a duration of ulcer history was not established.

Table 1. Distribution of patients with peptic ulcer of both groups according to the duration of ulcer history

Duration of ulcer history (in years)	Groups:					
	Uncomplicated course of ulcer (n - 94)		"difficult" DU (n - 262)		Xi²	P
	abs	%	abs	%		
up to 6 years old	76	80,9	13	5,0	133	<0.05
6 – 10	15	15,9	118	45,0	161	<0.05
11 – 15	3	3,2	95	36,2	124	<0.05
16 – 20	-	-	24	9.2	x	x
21 and older	-	-	12	4.6	x	x
Total	94	100	151	100	x	x

As can be seen from Fig. 2, in the comparison group, exacerbation of the disease was observed once every 2-5 years in 79 (80.9%) cases, while in the main group - only in 6 (2.4%). Exacerbations 2-4 times a year in the comparison group were noted only in 7 (7.4%) cases, while in the main group - in 215 (82%).





As can be seen from Fig. 2.5., in the comparison group, dyspeptic disorders in the form of nausea 30 (31.9%) and heartburn 53 (56.4%) were moderate and diagnosed, and vomiting was observed only in 9 (9.6%) cases. In the main group, dyspeptic disorders in the form of nausea in 187 (76.3%) and heartburn in 214 (81.7%) were more pronounced, and vomiting was detected in 154 (58.8%) cases.

Results and Discussion

As can be seen from the following table 2, in patients with DU with “difficult” DU, in the control group (114), local complications associated with surgery on the stomach were diagnosed in 22 (19.3%) patients. Of these, failure of the duodenal stump sutures was diagnosed in 10 (8.8%) patients, with death in 5 (4.4%) cases.

Table 2 Frequency and nature of complications associated with gastric surgery in the control and study groups.

Nature of postoperative complications		Group of patients			
		Control (n-114)		Researched (n -148)	
Number of patients (n)		Abs	%	Abs	%
- failure of seams		10 (5)	8,8+2,65	2 (1)	1,3+0,9
- pancreatitis (pancreatic necrosis)		4 (2)	3,5+1,7	-	-
- anastomositis		7	6,1+2,2	7	4,7+1,7
- bleeding from the carina of the stomach		-	-	1	0,9
- infringement of the anastomosis in the mesentery of the colon		1	0,9	-	-
Total	abs %	22 (7)	19,3	10(1)	6,7+2,1

The frequency and nature of general postoperative complications that can occur during surgical interventions on other organs and systems of the body in the control and study groups are presented 3.

Table 3 Frequency and nature of general postoperative complications.

The nature of postoperative		Group of patients				
complications		control		P	researched	
number of patients (n)		n - 114			n - 148	
- Bacteriological examination		6	5,3	0.3173	4	2,7
- Traumatological Endoprosthetic Department		4	3,5	0.0027	1	0,7
- suppuration of surgery wounds		2	1,7	0.5637	3	2,0
Total	abs %	12	10,5+2,9		8	5,4+1,9

Thus, analysis of the causes of undesirable consequences and revision of surgical tactics taking into account the typological features of the clinical course and the widespread use of improved methods and technical techniques of operations allowed us to reduce the frequency of postoperative complications associated with surgical intervention on the stomach by 12.6% (from 19.3 to 6.7%), as well as postoperative mortality by 5.4% (from 6.1 to 0.7%).

Conclusion

Thus, in "difficult" pylorus-preserving gastrectomy with arterial reconstruction according to Haberer, it is justified in ulcerous and giant colitic ulcers of the anterior wall of the duodenal bulb. If after gastrectomy the lateral wall of the initial part of the duodenal bulb remained free, a longitudinal jejunal loop anastomosis according to Haberer-Finney was performed. If the anterior wall of the initial part of the duodenal bulb remained free, a transverse jejunal loop anastomosis according to L.G. Khachiev was performed.

So, as a result of the work, modifications of the first Billroth method in the study group of patients were performed in 79.1% of cases, which was one of the measures in the surgical prevention of insufficiency of the sutures of the duodenal stump.

As a result of the work done, the frequency of postoperative complications in "difficult" duodenal ulcers associated with surgery on the stomach decreased by 12.6% (from 19.3 to 6.7%), and postoperative mortality by 5.4% (from 6.1 to 0.7%). General complications decreased from 10.5 to 5.4% (5.1% decreases).

Thus, for "difficult" duodenal ulcers and revision of surgical tactics taking into account the typological features of the clinical course, as well as the use of improved methods and techniques of operations, improved long-term excellent and good results by 14.5%

(from 70.7 to 85. 2%), reduce the frequency of satisfactory results by 9% (from 20.6 to 11.6%) and unsatisfactory results by 5.7% (from 8.7 to 3%). All this made it possible to achieve the desired goal of the study.

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