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SURGICAL TACTICS IN THE CONNECTED COMPLICATIONS WOUND OF THE DUODENUM

Summary. Authors analyzed results of surgical treatments 307 patients with connected complications WDDI.

Patients for used diagnostically and treatment tactics was divided 2 groups. The first group consists of 168 (54,7%) patients, that resection gastric with "tradition" variant, the second group was 139 (45,3%) patients, which done modifying variants of resection gastric.

Authors conclusion, improving exclusive operation types and used optimal treatment methods gave to decrease frequency of early postoperation "specifically" complication to 8,3% (from 15,5 to 7,2%, $p<0,01$), frequency relaparotomy to 4,3 (from 6,5 to 2,2%) and mortal cases – to 2,2% (from 2,9 to 0,7%, $p<0,05$), and these give possibility improving results of surgical treatments of the duodenal wound with connected complications.

Key words: resection of gastric, main group, control group, relaparatomy, modification variants.

Actuality of problems

Taking modern complex conservative therapy both dispensary and in the special permanent establishment, give decreasing of consider of the duodenal ulcer (DU), but these works con not reduce frequency of complications for requiring surgical interference. By different authors had written, which amount of the complications of peptic ulcer of the DI consist of from 8 to 15 %, from all patients with gastro-duodenal ulcers [2, 3, 5, 8].

Particularly awesome and not enough studied combined complications of ulcer diseases of the stomach and duodenal intestine (UDSDI). By different authors, frequency of the combined complications varies from 25 to 30% from total number sick with complicated gastro-duodenal canker [1, 4, 7, 9].

Ungrounded using conservatives antiulcer therapy, which often continues to use a long time, even after development symptoms of complications, brings to treat 48-75 % sick in the surgical permanent establishments with late stages of the disease [6].

Coming from stated, problem of the diagnostics and development more reliable and function fullfledged organ saving, drain and resection operative allowances, capable reducing or eliminate speed, uncontrolled empty of the stomach, causing development of dumping-reactions, also regurgitation beside patients with combined complications of the duodenal ulcers, remains actual and requires further improvement.

Aim researches

Perfect direct and remote results surgical treatments in patients with combined complications of the cankers DI, by using organ saving operation with application the single-in-line seam.

Materials and methods

In the surgical chair base of Andijan state medical institute was operated 1135 patients with complications of peptic ulcer of the duodenal intestine (PUDI). 307 patients of them formed with combined complications of PUDI. These materials given into studies.

The patients divided into 2 groups by diagnostic and surgical tacticians. The first control group has formed 168 (54,7%) patients, which were operated at the first period (1991-1996 yy. inclusive). The second main group has formed 139 (45,3%) patients, which were operated in the second period (2010-2015 yy. inclusive). In the first group were executed "traditional" variants of the stomach resections. The patient of the second group were executed modified variants of the stomach resections.

In control group men has formed 103 (61,3%) sick, women 65 (38,7%), in the main group men has formed 96 (69,1%) sick, women 43 (30,9%).

In investigation group youngers formed 46 (14,9%) years 20-44, majority from 45 to 59 years old patients has formed 198 (64,5%) and they are most able-bodied age.

Duration ulcerous anamnesis varied from 1 to 21 and more, at the average 6,1 years, moreover beside 32,9% sick anamnesis noted more than 5 years.

The nature and frequency of combined complications of the ulcers beside control group patients presents in table 1.

In control group combined complications bleeding + stenosis revealed in 14 (8,4%) event, bleeding + penetration in near organs 17 (10,2%) event, penetration + stenosis in 29 (17,3%) event, penetration + perforation 44 (26,2%) event and combined complication perforation + stenosis revealed in 56 (33,3%) events, penetration + perforation + bleeding in

5 (2,9%) and penetration + perforation + bleeding + stenosis revealed in 3 (1,8%) events.

Table 1.

The nature and frequency of combined complication of the ulcers beside patients in the research group

Character combined ulcer of the DI	Groups of patients				All	
	Control		Main			
	abs	%	abs	%	abs	%
Bleeding+stenosis	14	8,4	12	8,6	26	8,5
Bleeding + penetration	17	10,2	15	10,8	32	10,4
Penetration+ stenosis	29	17,3	23	16,5	52	16,9
Penetration + perforation	44	26,2	36	25,9	80	26,1
Penetration + stenosis	56	33,3	49	35,4	105	34,2
Penetration + perforation + bleeding	5	2,9	3	2,2	8	2,6
Penetration +perforation + bleeding + stenosis	3	1,8	1	0,7	4	1,3
All patients	168	100	139	100	307	100

In the main group sick of combined complications bleeding + stenosis revealed in 12 (8,6%) event, bleeding + penetration in near organs 15 (10,8%) event, penetration + stenosis in 23 (16,5%) event, penetration + perforation 36 (25,9%) event and combined complication perforation + stenosis revealed in 49 (35,4%) events, penetration + perforation + bleeding in 3 (2,2%) and penetration + perforation + bleeding + stenosis revealed in 1 (0,7%) events.

In program for patients like these instrumental examination before operation as esophageal-gastroduodenal-scope (endoscopic company PENTAX OS-A79), roentgen-contrast and ultrasonic study. From laboratory exams has done usual clinical and biochemical blood test and urines, researched rolling up of the blood system.

Results of the study and discussion

Endoscopic studies showed, that most often in 191 (62,2%) events was smitten anteroom wall of the duodenal bulbs, in 45 (14,6%) events was back wall and in 71 (23,2%) events lateral wall of the duodenum.

With X-ray examination defined symptom "niches" or convergent pleat mucous on the place ulcerous-score deformation, which localization DU in 247 (80,4%) patients. Deformation of the bulbs of duodenum was defined beside 231 sick (75,2%).

Defined evacuator function condition of the stomach, which characterized empty gastric. Distinguished faster (empty time less 1 hour), normal (1/2—2 hours) and decelerated evacuation (more than 2 hours).

The patients was prepared to the operation during 7-10 days. For this period spent complex antiulcer therapy, corrected break-thread function of main inner organs, for organism were filled reserves with intravenous infusion saline and protein solution, prescribed vitamin and etc.

In control group patients were used following variants anastomosis under "traditional" RS: GDA with Bilroth-1; TLA with Gaberer-Finney; TLA with Hachiev; GEA with Gofmeyster - Finsterer; GEA with Balfur; GEA with Ru.

In the 2 table are presented early post-operation "specific" complications in the control group depending on type executed operations.

Table 2.

Amount early "specific" complications in control group depending on type of RG

Types stomach operation with drain	Discount		bleed.		MEF		All	
	abs	%	abs	%	abs	%	Abs	%
GDA with B-I, n = 72	-	-	3	4,2	4	5,6	7	9,7
TLA with Xachiev, n = 5	-	-	-	-	1	20,0	1	20,0
TLA with Gabeber-Finney, n = 34	-	-	1	2,9	3	8,8	4	11,7
GEA with Gofm.-Finster., n = 43	4	9,3	2	4,6	4	9,3	10	23,3
GEA with Balfur, n = 6	-	-	1	16,6	1	16,6	2	33,4
GEA with Ru-Ibadov, n = 8	-	-	1	12,5	1	12,5	2	25,0
All, n = 168	4	2,4	8	4,7	14	8,4	26	15,5

As can see from the table, in control group sick existed incapacity cults of DI in 4 (2,4%) events, bleeding from zone anastomosis existed in 8 (4,7%) events and breaches motor-evacuator functions (MEF) existed in 14 (8,4%) events. In control group patients' complications connected with operative interference have formed in general amount 26 (15,5%).

In the main group patients were used following variants of draining under modified by RS: GDA with Bilroth - 1 - Gaberer; TLA with Gaberer - Finney; TLA with Hachiev; GEA with Gaberer – Gofmeyster - Finsterer; GEA with Gaberer – Ru - Ibadov.

Modification of RS by Bilrot-1-Gabeber. Upper-middle laparotomy. Strong operation is produced after auditing of the upper floor abdominal cavity. Marks resection borders of the stomach, values DI condition, path-morphologic changes, location cankers and possibility removing, also possible type of anastomosis. Then mobilizes strictly abroad wall of stomach and DI by Kocher. Exasperates selective vagotomy above level marked resections to the esophagus. Deleted part of the stomach with the part of big curvature is superimposed perpendicular with its axis the gastric jom on distance 5-6 sm, is not getting to the small curvature. On the part of small curvature is superimposed the second jom in 45^0 under corner to axis of the gastric. Then is made intersection the small curvature under the second jom with imposition node serosa-muscular-submucosa seams in one row. Then on 5-6 mm proximal is split the first jom of serosa shell and roundly is superimposed corrugating muscular-submucosa seams, reducing diameter the stomach output part to 2,5-3 sm. Between joms and assessed seams of stomach stump is cut. In further between stump and

back wall DI superimposes below cankers serosa-muscular knotty seams (fig. 1). On them antral part of gastric and part DI with canker excises, deletes. Then single-in-line node serosa-muscular-submucosa seams makes anteroom lip of anastomosis. The place of the butting with three seams on small curvature is consolidated "P"-figurative suture. In terminal anastomosis checks of hermetic and permeability. In the fig. 2 is put the final type RS modified by Bilroth-1-Gaberer-Finney.

Follows note, that restriction of resection of the gastric only deleted antrum promotes the conservation the most part of the stomach and allows imposing gastro-duodenal anastomosis without pulling suture.

Modification of RS by Gofmeyster-Finsterer. The stomach stump described above in fig. 3. is presented final type modified resections of the gastric by Gofmeyster-Finsterer.

Under modified RG by Gofmeyster-Finsterer used the development methods for sewing DI cults. We have revised the operative technology and reached to conclusion, that she must provide reliability of the coverture cults under minimum trauma.

Beside patients have used 2 main group advanced methods for sewing cults, that enabled is greatly spared using fabrics of the DI, but coverture cults under minimum pull fabric and small mobilization cults nearly excludes to breach blood circulation. Internal drain using for cults provides reliability of the methods in plan of the preventive maintenance to insolvency of the cults suture.

For the modification of the coverture cults, which we use with cannot give complication and stenos canker of the DI bulb. During takes in DI cults before superimpose 2 lateral serosa-muscular seam.

After fastening seams on the lateral sides of the DI cults, it involves inside and DI stump gains eight form. Here in after superimpose "P"-figurative serosa-muscular seam. During the taking in this seam makes invagination of anteroom and back wall of the cults.

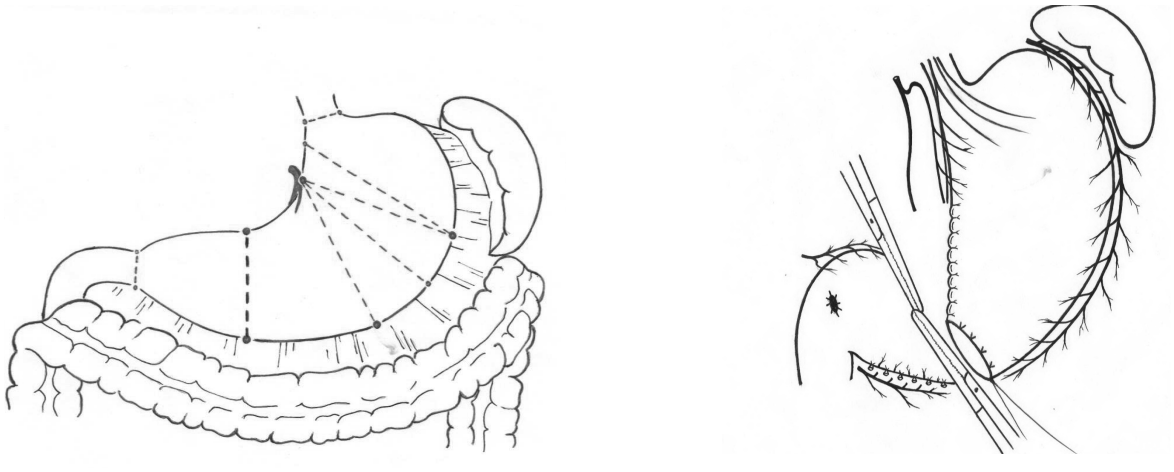

Fig. 1. Mobilization and resection of the stomach (scheme)

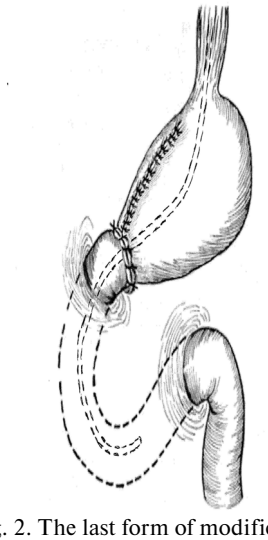

Fig. 2. The last form of modification RS by Bilroth-I-Gabeber-Finney

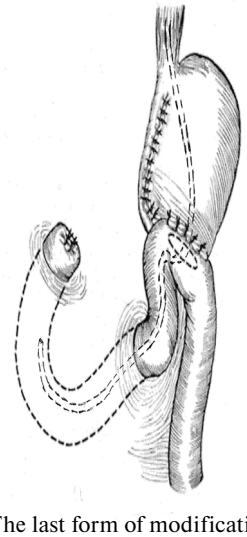

Fig.3. The last form of modification RS by Bilroth-II- Gofmeyster-Finsterer

Thereby, duodenal stump is took in single-in-line node seams with invagination the first lateral, then front and back walls.

This method has an advantage, expressing in that, which imposition single-in-line seam provides small trauma, spares tissue for closing cults, makes simply of the methods. The mucous shell of the gut remains intact. Using serosa-muscular seams allowing avoid infected suture by intestine contents.

With the "difficult" canker, when unchangeable fabric for closing cult, is else less, technology of the coverture cults is concluded in following. Two half-kissed seams are superimposed for coverture of the DI cults. Here with, enter of the needle must be 0,2 cm away from edge of the DI wall, but out on races-standing 0,5-0,7 cm. Between the following enter and out of the needle area must correspond also 0,5-0,7 cm. During the delaying seams, DI wall overturning inside.

Necessary condition of the using the said methods is identical internal draining of the DI cults. For this constant nose-gastric-duodenal probe is directly taken in the DI cult.

For well-timed reconstruction motor-evacuator functions of the bowels and correction metabolic frustration were used probe enteral feeding (conducted early intestinal stimulation), which began on the 2 day and was realized to account more ion solution (mineral water). From the 3 day, added drunk-flesh mixture. The plastic material need for defined with provision for degree of the breach metabolism and values of the pathological losses. If con not be complications, current of the postoperative period, probe deleted on the 6-7 day.

Beside main group patients were extended evidences modification of the first way Bilroth, in connection with than percent resection with gastric-duodenal anastomosis is increased from 53,9 to 78,7%. Also, was accepted to refuse using the resections of the belly by Balfur-Mayngot.

The evidences to imposition gastric-duodenal anastomosis by Bilroth-1-Gaberer was bulbous location of the cankers, absence big around canker infiltrate and expressed deformation initial part of the duodenum.

Finding expressed the around ulcer infiltrate and deformation of the bulb was evidence for imposition terminal-lateral anastomosis. We consider that the most optimal anastomosis is L.G.Hachiev, so when change the front wall of the duodenum trying to impose anastomosis by given methods. Here with, if the changed the lateral wall duodenum and imposition seams was suitable, executed the terminal-lateral anastomosis by Gaberer-Finney.

The evidences for resection by Bilroth-2 remained big around ulcer infiltrates, "low" and hard deleted cankers, else decompensation degree of acute bringing part syndrome. In compensate and sub-compensate forms ABPS was produced correction of the operation Strong. In one patient with decompensate degree of the ABPS is executed modification RS by Ru-Ibadov (with invagination entero-entero anastomosis).

In the 3 table are presented amount existed early post-operate "specific" complications in the main group.

Table 3.

Amount early "specific" complications in the main group patients connected with RS

Types draining stomach operation	Non.		bleed.		MEF		All	
	abs	%	abs	%	abs	%	abs	%
GDA by B-I, n = 77	-	-	1	1,3	2	2,6	3	3,9
TLA by Xachiev, n = 8	-	-	-	-	1	12,5	1	12,5
TLA by Gabeber-Finney, n = 27	-	-	-	-	1	3,7	1	3,7
GEA by Gofm.-Finst., n = 23	2	8,8	1	4,4	1	4,4	4	17,6
GEA by Balfur, n = 0	-	-	-	-	-	-	-	-
GEA by Ru-Ibadov, n = 4	-	-	-	-	1	25,0	1	25,0
All, n = 139	2	1,4	2	1,4	6	4,3	10	7,2

From the table can be seen, in the main group sick insolvency of the duodenum cults existed in 2 (1,4%) events, bleeding from zone anastomosis existed in 2 (1,4%) events and breach motor-evacuator function (MEF) existed in 6 (4,3%) events. In the main group sick has formed complications connected with operative interference in general amount 10 (7,2%).

Introduction modified by RS and correction of conduct post-operation period enabled to reduce the percent of the breaches MEF beside main group patients with 1,8 before 0,7% ($r<0,05$), but mortality given complication with 0,6 before 0,0% ($r<0,01$).

At result of the surgical treatment of both groups with couple complications of the DI cankers (the table 4), possible draw conclusion, that in the main group patients for us gave to manage vastly to reduce the frequency complications accordance with operative interference, frequency re-laparotomy and frequency lethal upshot.

Table 4

Comparative characterization results of the surgical treatments in the main and control group patients.

Patients group	Groups of patients		Improvement results to
	Control n=168	Main n=139	
Complications connected with surgical treats:			
1. Unhealthy	4 (2,4)	2 (1,4)	2 (1,0)
2. Bleeding	8 (4,7)	2 (1,4)	6 (3,3)
3. Destroy MEF	14 (8,4)	6 (4,3)	8 (4,1)
All complications	26 (15,5)	10 (7,2)	16 (8,3)
Re-laparotomy	11 (6,5)	3 (2,2)	8 (4,3)
Mortality	5 (2,9)	1 (0,7)	4 (2,2)

Conclusion

For us designed all improvements separate technical methods, operations and using the optimum

ways the treatment of the appeared complications have allowed to reduce of the frequency early post-operation "specific" complications in 8,3% (from 15,5 to 7,2%, r<0,01), frequency re-laparotomy in 4,3 (from 6,5 to 2,2%) and lethal upshot - in 2,2% (from 2,9 to 0,7%, r<0,05), here in, promoting improvement surgical result of the treatment of the combined complications duodenal ulcers whole.

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ХИРУРГИЧЕСКАЯ ТАКТИКА ПРИ СОЧЕТАННЫХ ОСЛОЖНЕНИЯХ ЯЗВ ДВЕНАДЦАТИПЕРСТНОЙ КИШКИ

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Резюме. Авторы анализируют результаты хирургического лечения 307 пациентов с сочетанными осложнениями ЯБДПК.

Больных в зависимости от примененной диагностической и хирургической тактики условно разделили на 2 группы. Первую контрольную группу составили 168 (54,7 %) пациентов которым были выполнены «традиционные» варианты резекции желудка, вторую основную группу составили 139 (45,3%) пациентов которым были выполнены модифицированные варианты резекции желудка.

Авторы делают заключение, усовершенствованные отдельные технические приемы операции и применение оптимальных способов лечения возникших осложнений позволили снизить частоту ранних послеоперационных «специфичных» осложнений на 8,3% (с 15,5 до 7,2% p<0,01), частоту релапаротомии на 4,3 % (с 6,5 до 2,2%) и летальных исходов – на 2,2% (с 2,9 до 0,7%, p<0,05), тем самым, способствуя улучшению результатов хирургического лечения сочетанных осложнений дуоденальных язв в целом.

Ключевые слова: *резекции желудка, основная группа, контрольная группа, релапаратомия, модифицированные варианты.*

ХІРУРГІЧНА ТАКТИКА ПРИ ПОЄДНАНИХ УСКЛАДНЕНЯХ ВИРАЗОК ДВЕНАДЦЯТИПАЛОЇ КИШКИ

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Резюме. Автори аналізують результати хірургічного лікування 307 пацієнтів з поєднаними ускладненнями ВХДПК.

Хворих залежно від застосованої діагностичної та хірургічної тактики умовно розподілили на 2 групи. Першу контрольну групу склали 168 (54,7 %) пацієнтів, яким було виконано «традиційні» варіанти резекції шлунку, другу основну групу склали 139 (45,3 %) пацієнтів, яким було виконано модифіковані варіанти резекції шлунку.

Автори роблять висновок, що удосконалені окремі технічні прийоми операції та застосування оптимальних способів лікування ускладнень, що винекли, дозволили понизити частоту ранніх післяопераційних «специфічних» ускладнень на 8,3 % (з 15,5 до 7,2 %, p<0,01), частоту релапаротомії на 4,3 % (з 6,5 до 2,2 %) і летальних випадків — на 2,2 % (з 2,9 до 0,7 %, p<0,05), сприяючи поліпшенню результатів хірургічного лікування поєднаних ускладнень дуоденальних виразок у цілому.

Ключові слова: *резекції шлунку, основна група, контрольна група, релапаратомія, модифіковані варіанти*