

Comparison of the effect of gastric resection and simple repair for acute gastric perforation

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Abstract

Objective: To discuss the effect of gastric resection and simple repair for acute gastric perforation. **Methods:** A total of 80 patients with acute gastric perforation admitted to our hospital from February 2020 to February 2021 were randomly selected. According to the order of hospitalization, the patients were divided into control group and experimental group. There were 40 cases in the control group and 40 cases in the experimental group. The control group was treated with a majority of gastrectomy. The experimental group was treated with simple repair surgery, and the clinical treatment effects of the experimental group and the control group were observed. **Results:** Compared with the control group, the experimental group had a higher clinical treatment efficiency. The comparison of the data between the groups showed ($P < 0.05$), indicating that the data difference was statistically significant; the experimental group's operation time, hospital stay, time to get out of bed and The recovery time of gastrointestinal function was significantly shorter than that of the control group ($P < 0.05$). The comparison of the two groups of data showed that there were statistical differences; the complication rate of the experimental group was much lower than that of the control group. The results of the comparison between the two groups showed that ($P < 0.05$), the data had statistical differences; the patients in the experimental group had a lower rate of satisfaction with the treatment, while the control group had a higher rate of data comparison between the groups ($P < 0.05$). **Conclusion:** Simple repair surgery has played a good role in the treatment of acute gastric perforation, the incidence of complications is low, and the recovery time of patients can be

significantly shortened. Patients are satisfied with the treatment and are worthy of application and promotion.

Keywords: acute gastric perforation; gastrectomy; simple repair; effect

Acute gastric perforation is a relatively common disease in clinical practice, mainly caused by gastric ulcer. The more common cause is overeating. Overeating will increase the patient's pepsin and gastric acid, which will increase the volume of the stomach, which in turn leads to perforation [1]. The clinical manifestation is severe pain, and the pain spreads from the perforation to the entire abdomen, which seriously threatens the life and health of the patient. Clinically, surgical methods are mostly used for treatment, but the choice of surgical method is particularly important for patients with acute gastric perforation [2-4]. In order to explore the effectiveness and reliability of simple repair and most gastrectomy, our hospital specially selected 80 patients with acute gastric perforation for grouping experiments. The detailed research status is shown below.

1 MATERIALS AND METHODS

1.1 General information

A total of 80 patients with acute gastric perforation admitted to our hospital from February 2020 to February 2021 are randomly selected. According to the order of hospitalization, the patients were divided into control group and experimental group. There were 40 cases in the control group and 40 cases in the experimental group. The control group included 10 male patients and 30 female patients, aged 23-57 years old, with an average of (35.26±5.17) years old. The experimental group included 12 male patients. There are 28 female patients, aged 23-59 years old, with an average of (35.29±5.18) years old. These patients meet the clinical diagnostic requirements for acute gastric perforation; the clinical data of these patients are complete; patients with malignant tumor diseases are excluded; Exclude patients with severe endocrine diseases; exclude patients with debilitating diseases in vital organs; exclude patients taking drugs that have an impact on the results of this study; exclude patients who participate in other

studies at the same time; exclude those with low compliance with treatment Patient. The difference between the two groups of patients ($P>0.05$) is comparable.

1.2 Method

In this study, patients in the control group were treated with most of the gastrectomy. The anesthesia method was epidural anesthesia. The position was supine, the incision was selected in the middle of the patient's upper abdomen, and the left side or left upper side of the abdomen. An incision is made at the rectus muscle, and the subcutaneous tissue of the patient is successively cut, and the organs, ulcers, etc. of the Duqiang tissue are explored. Separate the greater curvature of the stomach and cut it one by one, then ligate the vascular branches to the stomach wall, and treat the lesser curvature of the stomach, and the duodenum, then separate the posterior wall of the stomach, cut off the stomach body, and remove about 2/3 to the patient's stomach 3/4 of the size, the final gastrointestinal anastomosis, clean the patient's abdominal cavity, and close it.

Patients in the experimental group were treated with simple repair surgery. The anesthesia method was epidural anesthesia. The position was supine. A longitudinal incision was made on the right rectus muscle of the patient's right abdomen. The incision was 10cm in size. Then the subcutaneous tissue of the patient was incised layer by layer. , And enter the abdomen, separate the adhered intestines, and suck up the pus in the abdominal cavity. Then remove the residue from the patient's ulcer. Explore the abdominal cavity to observe whether there is any disease. Use sterile saline or iodophor to clean the perforation site, suture the perforation lesion in the direction of the whole slice, and confirm whether there is leakage in the repair and maintenance, and then cover the omentum on the perforation site , Ligate and fix at the same time. Exploring whether there are lesions in the abdominal tissues and organs, if not, the abdominal cavity can be cleaned, and then the drainage tube will be indwelled, and finally sutured.

1.3 Indicator observation

Observe the clinical treatment effect of the two groups of patients. After different surgical methods, the clinical performance of the patient is significantly improved, and the ulcer healing is obvious; the

clinical performance of the patient has improved, and the ulcer healing has also improved is effective; the clinical of the patient If there is no sign of improvement, and the ulcer has no signs of improvement, it is invalid; the total effective rate is the difference between 1 and the inefficiency.

The operation time, hospitalization time, out-of-bed activity time and gastrointestinal function recovery time of the two groups of patients were observed.

Observe the complications of the two groups of patients.

To observe the satisfaction degree of the two groups of patients with the treatment, use our hospital's self-made surgical patient satisfaction rate survey questionnaire to evaluate the full score of 100 points, the very satisfied are the scores between 88 and 100; the basically satisfied are the scores Those with a score between 70 and 87; those who are generally satisfied are those with a score between 60 and 69; those who are dissatisfied are those with a score between 0 and 59; the overall satisfaction rate is very satisfied rate, basic satisfaction rate, the sum of general satisfaction rates.

1.4 Statistical methods

Data processing: SPSS21.0 statistical software; data description: counting data is (n%), measurement data is (\pm s); difference test: counting data is χ^2 , measurement data is t; statistical significance criterion: $P < 0.05$.

2 RESULTS

2.1 Compare the clinical efficacy of patients in the control group and the experimental group

The effective rate of treatment in the experimental group was higher ($P < 0.05$), as shown in Table 1.

Table 1 Comparison of the total effective rate of the two groups of patients (n,%)

Group	Number of cases	Invalid	Effective	Markedly effective	Total effective rate
Experimental group	40	3 (7.50)	12 (30.00)	25 (62.50)	37 (92.50)
Control group	40	10 (25.00)	15 (37.50)	15 (37.50)	30 (75.00)
X^2	--	-----	-----	-----	4.5006
P	--	-----	-----	-----	0.0338

2.2 Compare the surgical indications and recovery of the two groups of patients

The operation time, hospitalization time, gastrointestinal function recovery time and time to get out of bed in the experimental group were significantly less than those in the control group ($P < 0.05$), see Table 2.

Table 2 Comparison of surgical indications and recovery of the two groups of patients ($\pm s$)

Group	Number of cases	Time to get out of bed (h)	Gastrointestinal function recovery time (h)	Operation time (min)	Hospitalization time (d)
Experimental group	40	12.82 \pm 3.66	26.83 \pm 3.26	43.15 \pm 6.81	7.12 \pm 2.32
Control group	40	30.69 \pm 5.79	55.39 \pm 6.96	157.34 \pm 20.65	12.39 \pm 4.08
T	--	16.4997	23.5021	33.2139	7.1014
P	--	0.0000	0.0000	0.0000	0.0000

2.3 Comparing the incidence of complications between the two groups

The incidence of complications in the experimental group was lower, and the control group was higher. The comparison between the two groups was statistically significant ($P < 0.05$), see Table 3.

Table 3 Comparison of the incidence of complications between the two groups of patients [n(%)]

Group	Number of cases	Multiple organ failure	Duodenal stump fistula	Toxic shock	Postoperative infection	Total incidence
Experimental group	40	1 (2.50)	1 (2.50)	2 (5.00)	0 (0.00)	4 (10.00)
Control group	40	2 (5.00)	3 (7.50)	4 (10.00)	3 (7.50)	12 (30.00)
X ²	--	.....	.....	.....	.....	5.0000
P	--	.....	.....	.....	.....	0.0253

2.4 Compare the satisfaction degree of the two groups of patients with the treatment

The comparison of the satisfaction rate of the two groups of patients showed that the satisfaction rate of patients in the experimental group was higher and that of the control group was lower. There was a statistical difference in the data comparison between the groups ($P < 0.05$), see Table 4.

Table 4 Comparison of the total satisfaction of the two groups of patients (n,%)

Group	Number of cases	Dissatisfied	Generally satisfied	Basically satisfied	Very satisfied	Total satisfaction
Experimental group	40	1 (2.50)	0 (0.00)	12 (30.00)	27 (67.50)	39 (97.50)
Control group	40	5 (12.50)	3 (7.50)	12 (30.00)	20 (50.00)	32 (80.00)
X ²	--	-----	-----	-----	-----	6.1346
P	--	-----	-----	-----	-----	0.0132

3 DISCUSSION

Acute gastric perforation is a clinically common complication of gastric ulcer. The pathogenic factor is mainly caused by poor diet. In recent years, with the change of people's living habits and the diversification of diet, the number of gastric perforation has been caused. It is on the rise year by year. The disease can cause severe pain in the patient's stomach, accompanied by bleeding. If the food at the perforation site flows into the abdominal cavity, it may cause acute peritonitis, which seriously threatens the patient's health and life safety [5-7]. The main method of current clinical treatment is surgical treatment, but different surgical methods have different adaptive symptoms. Therefore, it is necessary to select an appropriate surgical plan based on the actual condition of the patient. Both subtotal gastrectomy and single puncture repair are the main methods for the treatment of acute gastric perforation, and both treatment methods have their own advantages. Subtotal gastrectomy can solve the problem of gastric perforation at one time. The clinical effect lasts for a long time, and the perforation time is more suitable for patients with pyloric obstruction and bleeding symptoms within 24 hours, but this type of operation is more complicated. The safety index of surgery is not high, and the prognosis is poor [8-10]. Subtotal gastrectomy will cause changes in the structure of the patient's gastrointestinal tract and reduce the capacity of the stomach, which can easily lead to poor appetite and weight loss, and interfere with the patient's recovery process. Simple repair surgery has the advantages of convenient operation, short perforation time, short operation time, fast recovery, and high surgical safety, and is very popular among patients and medical workers. The recovery time of gastrointestinal function of patients with simple repair surgery is short, and they can eat normally after recovery, without affecting nutrient absorption,

reducing complications, and significantly shortening the recovery time of patients, and the clinical treatment effect is more significant [11-13] . The results of this study also found that the clinical treatment efficiency and satisfaction rate of the experimental group were much higher than those of the control group, and the patients' operation time, hospitalization time, gastrointestinal function recovery time and time to get out of bed were all shorter, and complications The incidence rate is significantly reduced, and the safety is high, which shows the feasibility and necessity of pure repair surgery. In short, in the clinical treatment of patients with acute gastric perforation, the therapeutic effect of simple repair surgery is significantly better than that of most resections. The patient's recovery time is significantly reduced, and the treatment satisfaction rate is high. It is completely worthy of promotion and use.

REFERENCES

- [1] Rao Xuezhao, Hou Guojuan. Analysis of the effect of simple perforation repair and most gastrectomy on patients with acute gastric perforation[J]. Chinese and Foreign Women's Health Research, 2020(12): 31-32.
- [2] Cui Chaofeng, Dai Junyi, Wang Meng, Gao Haifeng, Dian Wei Na. Comparison of clinical efficacy of most gastrectomy and simple repair on acute gastric perforation[J]. Capital Food and Medicine, 2020, 27(10) : 23.
- [3] Jia Wei, Zhang Chengpeng, Li Quan. Comparison between simple repair and subtotal gastrectomy for acute gastric perforation [j] . Modern digestive and interventional diagnosis and treatment, 2019,24(12) : 1426-1428.
- [4]Zhang Mingqiang. Comparison of the effect of treatment of acute gastric perforation with most gastrectomy and simple repair[J]. Digest of World Latest Medical Information, 2019, 19(96): 177+179.
- [5] Lu Zhengguo, Zhang Chaojun, Ma Kaichuan. Observation on the clinical efficacy of most gastrectomy and simple repair in the treatment of acute gastric perforation[J]. China Modern Medicine Application, 2019, 13(20): 31-32.
- [6] Wang Jianhong, Chang Suhong. Application of simple repair and most gastrectomy in the treatment of acute gastric perforation[J]. Chinese Medicines and Clinics, 2019, 19(19): 3346-3348.
- [7] Li Shuangkui. Observation of the clinical efficacy of gastric resection and simple repair in the treatment of acute gastric perforation[J]. Digest of World Latest Medical Information, 2019, 19(39): 56+58.
- [8]Wang Ding. Observation of the clinical therapeutic effect of gastric resection and simple repair in the treatment of acute gastric perforation[J]. Journal of Cardiovascular Surgery (Electronic Edition), 2018, 7(04): 750-751.

[9] Zhang Quan, Pei Xiaorui, Lu Debao. The clinical effect of laparoscopy simple repair and laparotomy gastrectomy in the treatment of patients with acute gastric perforation[J]. Medical Equipment, 2018, 31(07): 94-95.

[10] Jia Yunfeng. Effect of Subtotal gastrectomy and simple repair on clinical outcome and complications in patients with acute gastric perforation. Electronic Journal of Integrative Chinese and Western medicine, 2017,5(33) : 189.

[11]Hu Yandong. Comparative analysis of the effect of most gastrectomy and simple repair in the treatment of patients with acute gastric perforation[J]. Journal of Practical Medical Techniques, 2017, 24(11): 1249-1250.

[12]Wan Hanchao, Zhu Bingfan. Comparison of clinical efficacy between gastrectomy and simple repair in the treatment of acute gastric perforation[J]. Forum on Primary Medicine, 2017, 21(32): 4513-4514.

[13]Tang Tao, Wang Zifang. Comparison of the application effect of simple repair and most gastrectomy in the treatment of acute gastric perforation[J]. Chinese Continuing Medical Education, 2017, 9(30): 74-76.