

## A clinical analysis of acute abdomen in laparoscopic general surgery

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**Abstract: Objective:** To investigate the clinical efficacy of laparoscopic treatment of acute abdomen. **Methods:** In our hospital, from January 2009 to January 2012 general surgery patients using laparoscopic treatment of acute abdomen clinical data of 260 patients were analyzed retrospectively. **Results:** The patient operative time 25 ~ 210min, bleeding 5 ~ 350ml, hospital days 4 to 20 days, with an average hospital stay of approximately (7.17 ± 2.35) days, bowel function returned to normal average of 2.5 days. Postoperative pain, were cured, **Conclusion:** Laparoscopic General Surgery abdomen with less trauma, less pain, faster recovery, no scar, small chance of complications and other advantages, it is widely in clinical practice.

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**Key words:** General surgery; abdomen; clinical analysis; laparoscopic

General surgery clinical course of treatment, the incidence of acute abdomen with a high incidence of the disease complex causes, rapid progression, disease diversification characteristics. Therefore, early diagnosis and treatment process has a lot of difficulties, and also happened because they cannot be properly diagnosed and not treated the disease caused by the delay phenomenon [1]. This study was carried out in January 2009 to January 2012 using laparoscopic general surgery in our hospital for treatment of 260 cases of patients with acute abdomen, and achieved good effect. The specific methods of the study are summarized as follows:

### 1. Materials and Methods

#### 1.1 Study subjects:

Select from January 2009 to January 2012 in our hospital inpatient general surgery patients using laparoscopic treatment of 260 cases of acute abdomen. Out of the total cases there are 168 male cases and 92 female cases, aged 18 to 56 years, mean age (34.5 ± 2.1) years of age. Among all the cases, there are 146 cases of appendicitis, abdominal pain of unknown origin in 52 cases, 26 cases of gastrointestinal perforation with peritonitis, intestinal obstruction in 22 cases, and 14 cases of intestinal tumors.

#### 1.2 Treatment Methods:

General anesthesia endotracheal intubation, select the umbilical or navel piercing point margin of puncture and pneumoperitoneum, laparoscopic puncture point. Thus enter, easy to operate and easy to find under the principle of selection which other operating Kong positions have. Operation number of holes is usually 3-4. If past history of abdominal surgery patients to consider the phenomenon of adhesion is generally away from the incision, and in accordance with the principle of safety as the most

important, the correct operational position of the hole, the other operating Kong in accordance with the specific circumstances to determine the exact location.

### 2. Results

#### 2.1 Laparoscopic exploration results

Out of the 260 cases of laparoscopic general surgery patients with acute abdomen by laparoscopy found 146 cases of appendicitis, gastrointestinal perforation with peritonitis in 38 cases, 22 cases of intestinal obstruction, intestinal tumors in 18 cases, 14 cases of cholecystitis, iso bit pancreatic tissue in 10 cases, 6 cases of jejunal diverticulitis, perforated diaphragm in 6 cases.

#### 2.2 Surgical ways:

246 cases were successfully completed through the application of laparoscopic surgery, accounting for 94.6%, of which 142 cases of appendectomy, gastric, intestinal perforation repair 26 cases, intestinal obstruction lyses 22 cases, bowel resection 16 cases of cholecystectomy, 14 cases of ectopic pancreatic, tissue resection in 10 cases, 6 cases of diaphragmatic repair, sigmoid colostomy four cases, and jejunal diverticulum resection in 6 cases. 260 patients with 14 cases in the middle to open surgery, including bowel tumor resection performed in 2 cases, the implementation of gastric perforation repair four cases, the implementation of four cases of intestinal perforation repair, appendectomy four cases.

#### 2.3 Surgical treatment effect

Surgical treatment of 260 cases of patients with operative time 25 ~ 210min, average time 59.80min; bleeding 5 ~ 350ml, hospital days 4 to 20 days, with an average (7.17 ± 2.35) days, postoperative intestinal function recovery time average of 2.5 days were cured.

#### 2.4 Occurrence of complications and follow-up:

No postoperative intra-abdominal hemorrhage, gallbladder fistula, intestinal fistula and intra-abdominal infections and other complications. For review before the patient was discharged abdominal color ultrasound, abdominal X-ray examination showed no complications such as intestinal obstruction and abdominal empyema. Category A surgical incision healing were followed up for six months to a year to find no obstruction, incisional hernia and other complications.

### 3. Discussion

General surgical treatment is to keep the development of minimally invasive surgery and the treatment of acute abdomen gradually becomes a major surgery. In the diagnosis and treatment, minimally invasive laparoscopic surgery is an important examination and treatment methods from the fields penetrate into the general surgical treatment of every aspect of general surgery minimally invasive surgery to bring a comprehensive upgrade<sup>[2]</sup>. Laparoscopic treatment of acute abdomen and in the course of using minimally invasive laparoscopic surgery technique has been refined and improved, with the scientific and technological development. The application of laparoscopic equipment and instruments have been developed and continuously improved, making the minimally invasive laparoscopic general surgery in the treatment of status has improved, so all that minimally invasive surgery instead of the traditional surgical methods have become a new standard for surgical treatment. In our country, this has been widely applied to laparoscopic general surgery in the treatment of acute abdomen surgery, the technology level with Europe and the United States is almost comparable level of technology, and the application of laparoscopic cholecystectomy surgery level in the surgical treatment quality and quantity already at the forefront of the international<sup>[3]</sup>. However, the international advanced level of technology, there are still some gaps, mainly in the treatment concept, training tools, and restrictions on the level of socio-economic development and machine intelligence level and remote surgery, etc.<sup>[4]</sup>.

This study summarizes the advantages of laparoscopic surgery as the following: (1) trauma: laparoscopic treatment of acute abdomen when playing in the abdominal wall need only 3-4 diameter of about 0.5cm ~ 1.0cm operating channels.<sup>[5]</sup> Because intra-abdominal surgical operation for limiting the scope of surgery, laparoscopic surgery generally surrounding tissue and organ damage less, but also can cause local tissue through laparoscopy is amplified, easy operation and the surgeon accurate positioning, increasing safety of the surgical procedure, reducing the side injury. This article operative time, blood loss was significantly less, which fully shows the advantages of

laparoscopic surgery; (2) pain: study data showed that after laparoscopic treatment of patients requiring less pain treatment. This article is required only 8 patients intramuscular analgesic relief, the proportion is about 3.1%; (3) quick recovery: postoperative abdominal surgery time is generally outside for one day, abdominal wound three days after surgery can be dressing. No infections may need to do deal with, so laparoscopic rarely affect the function of the gastrointestinal tract. This average hospital stay was (7.17 ± 2.35) days, the shortest three days can be discharged; (4) less scar tissue: during follow-up patients generally feel small incision laparoscopic surgery, scar tissue, but not easy to find beautiful incision; (5) Relatively surgery is of wide visual range, easy to operate: because laparoscopic entry into the abdominal cavity is located near the navel, the equivalent of the abdominal cavity at the center, in surgical exploration only change the direction of the probe, adjusting cable, adjust the lens, you can view all aspects of intra-abdominal condition; (6) fewer adhesions: because the incision is relatively small, less damage, less bleeding, etc., in the application of laparoscopic treatment of acute abdomen during general surgery, resulting in post-operative abdominal internal organs and intestinal adhesions opportunity is relatively small, the paper found no adhesions occur. Meanwhile, the minimally invasive laparoscopic surgical treatment more difficult and poor tactile and other shortcomings, so in actual operation time operative who want to be a higher level of technology in the choice of surgical procedures at the right time, the proposed application of laparoscopic general surgery abdomen when to be cautious.

In summary, the use of minimally invasive laparoscopic treatment of acute abdominal pain, quick recovery, no scar, small chance of complications and other advantages, it is widely in clinical practice.

### References

- [1] Zhang Ruili, Xu Yunfeng, Zhao Wenjun, etc. laparoscopy surgical acute abdomen [J]. Chinese Journal of Integrative Medicine, 2010, 16 (4): 455-457.
- [2] Zhu Shaohui, Li Rong, Wang Jianguo, laparoscopic treatment of acute abdomen clinical analysis of 198 cases [J]. Medical Information: Pharmaceutical edition, 2010, (6):35-36.
- [3] Chen Biao, Chen Jing Fan, Liuyuan Wen laparoscopic applications in elderly patients with acute abdomen [J]. Hainan Medical, 2007, 18 (4): 74-75.
- [4] Majewski WD. Long-term outcome, adhesions, and quality of life after laparoscopic and open surgical therapies for acute abdomen: follow-up of a prospective trial [J]. SURGICAL ENDOSCOPY-ULTRASOUND AND INTERVENTIONAL TECHNIQUES, 2005, 19 (1):81-90.
- [5] Gu Min, FAN original Ming, Wang, et al. Laparoscopic general surgery for 102 cases of acute abdomen clinical analysis [J]. Chongqing Medicine, 2010, 39 (10): 1267-1268.

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