



SURGICAL TREATMENT OF GASTRIC CANCER - THE LAPAROSCOPIC APPROACH STILL UNDERESTIMATED

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ABSTRACT

The authors represent a retrospective analysis of the operated patients with gastric cancer in the surgical clinic of University multi-profile Hospital for active treatment - Stara Zagora PJSC for the period of 2003 - 2011 years. Of the total 125 patients in 22.4% of them were carried gastrectomy, at 44.8% - stomach resection, in 13.6% - bypass anastomosis, in 17.6% - exploratory laparotomy and at 1.6% - laparoscopy.

The principles of the surgical treatment for an early gastric cancer are discussed, as well as the guidelines for the advanced forms of cancer of the stomach and the place of the laparoscopic surgery. And the necessity of routine application of laparoscopy and laparoscopic operative techniques in patients with advanced stage are given.

Key words: gastric cancer, laparoscopic surgery treatment

However sustainable trend to reduce the incidence of the gastric cancer in the world, still its frequency is high, with significant differences in its geographical distribution. The disease is most common in East Asia (Japan, China and Korea), a high rate of occurrence - in Central and South America, Eastern Europe and parts of the Middle East. In Japan, gastric cancer is the most common type of cancer among men (1.4). The overall incidence of this pathology has declined in recent decades, but still remains a major unsolved problem, and as it ranks fourth in incidence and second as a cause of death from cancer worldwide after lung cancer (2).

In Bulgaria, the average annual incidence was 24 per 100,000, as men suffer twice as often as women.

Summary of the world is assumed that the overall five-year survival is 5-15%, and after radical surgery from 30 to 40% (6).

In the characteristics of the disease in the eastern and western parts of the world varies. The U.S. and other Western countries about 65% of gastric cancers are diagnosed at an advanced stage (T3/T4), the overall five-year survival in radically operated around 20-30%. In Japan and Eastern countries with widespread gastric cancer about 70% of cases are diagnosed as early cancer by about 90 percent five-year survival (5).

Proximal location of gastric carcinoma is characterized and occurs in the western world. Risk factors coincide with those of esophageal cancer - obesity, Gastro esophageal reflux disease GERD, Barrett's esophagus development (7).

Distal placements prevail in East Asia, where risk factors are the presence of *Helicobacter pylori* infection in the gastric mucosa, a diet low socio-economic status.

MATERIAL AND METHODS

Retrospectively examined patients, operated in the Surgical Clinic of the University multi-profile Hospital for active treatment - PJSC - Stara Zagora in the period 2003 - 2011 r.

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For diagnostic clarification of gastric carcinoma were used x-ray contrast stomachs, fibro gastroscopy with multiple biopsies. Distant from the tumor lesions were determined with ultrasonography of the abdomen, CT, laparoscopy.

Preoperative staging was performed according to the TNM-classification.

Patients are prepared for surgery with infusions of water-electrolyte solutions, the necessary replacement therapy, nasogastric tube, antibiotic prophylaxis.

RESULTS

For the period 2003 - 2011, in the Surgical Clinic of the University multi-profile Hospital

for active treatment - PJSC - Stara Zagora operated 125 patients with gastric cancer. Of these, 28 (22.4%) had undergone gastrectomy.

Subtotal resection was performed in 56 patients (44.8%).

In 22 patients (17.6%) is carried out only exploratory laparotomy.

Palliative operations (bypass anastomosis) were taken in 17 patients (13.6%).

In 2 (1.6%) is made laparoscopy, while another patient surgery started with laparoscopy and subsequently had undertaken conventional resection.

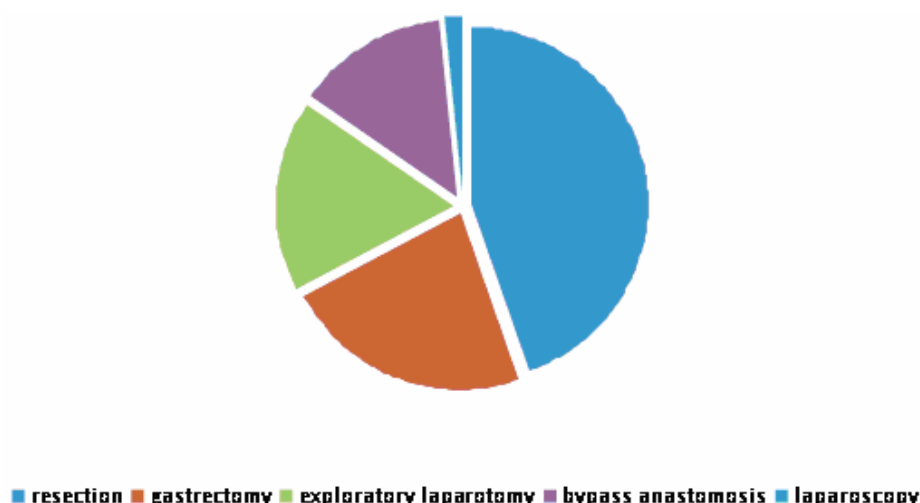


Fig. 1. Types of surgery

All resection of the stomach with lymph node dissection were performed by laparotomy. It is performed radical surgery for gastric cancer by laparoscopic method.

DISCUSSION

Issues to resolve, which placed collecting duct gastric cancer, as well as for the early diagnosis, and the approaches to radical surgical treatment, remain open.

Crucial for early diagnosis is screening (meaning carrying out routine fibro gastroscopy) that marks the best results during the event. It is especially reflected in Asian countries, particularly Japan, which was nearly double the five-year survival increased (8). It concludes that screening is a very effective

method to improve the success of treatment of stomach cancer (9).

In contrast, in Western countries, the incidence of gastric cancer is much lower. Due to this fact, as well as economic considerations, mass screening in these countries is not addressed. Diagnosis is more than half of cases in advanced stages where distant outcomes are unfavorable.

In the U.S., early forms of gastric cancer in the order of 10 per 100 000, while in Japan they are 78 per 100 000 (10). This clearly confirms the role of screening for malignant diseases of the stomach.

Following a first laparoscopic gastrectomy from Citano and co (11) in 1991 of cancer of

the stomach and reporting improvement in short-term results and the quality of life, laparoscopic gastric operations become an alternative method for the treatment of early forms of cancer, particularly in Japan and Korea. In early gastric cancer, there are three approaches to minimally invasive surgery: endoscopic (sub-) mucosal resection, laparoscopic wedge resection, laparoscopic resection (gastrectomy).

While the first two interventions are indicated for cases with no risk of metastasis, the laparoscopic resection with D2 lymph node dissection has been widely adopted for cases at risk of lymphatic metastasis.

The frequency of metastases in the lymph nodes in large series of early gastric cancer limited to the endometrium is about 1 to 3% and sub mucosa - 11 to 20 percent. However, it is rare lymphatic metastases in lesions limited to the mucosa (12).

For advanced forms of cancer, laparoscopic gastric resections are not permanently established as an alternative and standard treatment. Mostly this applies to Western countries with predominant forms of advanced cancer and a lower frequency. It is registered with caution in the choice of surgical method (laparoscopic or open technique) because of doubts in radical oncology and lack of long-term results.

Meanwhile in Japan, the number of laparoscopic resection with lymph node dissection has increased and is about 83% of total laparoscopic surgery for gastric cancer (12).

The most common site of relapse in surgical patients in the lymph nodes (37%), followed by liver (21%). Patients with more than 7 pieces metastatic lymph nodes have a 38% recurrence (13).

Recorded are the advantages of laparoscopic surgery to conventional methods: less operative trauma, quicker recovery, minimal blood loss, shorter postoperative stay. Also take into account equal opportunities for D2 lymph node dissection - number of separated lymph nodes (14).

It must be stressed importance of laparoscopy not only as a diagnostic method, but a crucial

role to specify the therapeutic approach. It becomes particularly important in patients in preoperative staging advanced in poor general condition, which can be done pre staging and final determination of surgical behavior. An additional argument in favor of laparoscopic staging is the high rate of complications - 23% and 20% mortality at exploratory laparotomy (15).

In the submitted of us sick laparoscopic surgery is used with the minimum number of patients without laparoscopic resection regarding malignant neoplasm of the stomach. Although advanced stage of the operated patients account being taken of the possibility of development in the direction of the active application of laparoscopic techniques in the treatment of gastric carcinoma

CONCLUSION

The frequency of gastric cancer worldwide has decreased, but its mortality is still high. Surgical resection performed in oncologic principles is only enabling cure disease. With the advent of laparoscopic surgery techniques, questions arise concerning the indications for their application depending on the stage of disease, tumor location, radical oncology, distant results.

Taking into account the advantages of laparoscopic over conventional methods - reduced operative trauma, less blood loss, faster recovery - they are particularly attractive for use in this type of pathology. While earlier forms of laparoscopic gastric cancer treatment methods are widely adopted in advanced stage their application is still a matter of debate, and subject to further study and validation.

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