

# MEDICAL SCIENCES

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## DISCUSSION ISSUES OF SURGICAL TREATMENT OF PATIENTS WITH ACUTE COMPLICATIONS OF MALIGNANT STOMACH TUMORS

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**Abstract.** The purpose of the work is solution the main issues of surgical treatment of patients with acute complications of gastric malignancies. The object of the study were 766 patients with acute complications of malignant tumors of the stomach, who were treated at the Kyiv City Center for Patients with Gastrointestinal Bleeding for the period from 2006 to 2020. Among patients, 754 (98,4%) were treated for malignant gastric tumors complicated by bleeding, 12 (1,6%) were treated for perforated tumors. A total of 361 of 766 patients underwent surgery in the two study periods, with a total operative activity of 47%. Radical surgical interventions in the first period were urgently performed 40 (51,9%), in the second period - 12 (15,6%), non-radical in the first period - 37 (48,1%), in the second - 10 (13,0%).

Thus, the frequency of emergency operations was reduced by almost 2 times, and surgical interventions in the early period (almost 80%) increased the proportion of radical operations to 70,7% with lymph node dissection in the amount of D2 by all oncological standards in 72,0% of cases.

**Keywords:** gastric cancer, radical surgery, early period, lymph dissection.

**Introduction.** Nowadays, despite significant progress in the treatment of cancer, gastric malignancies are the fifth most common in the world and they remain

the second leading cause of death from malignant tumors, after lung cancer [1, p. 69-90, 2, p. 7, 3, p. 42, 4, p. 5]. There is also an increase in morbidity among young people: gastric tumors are diagnosed in approximately 5,0% of people under 40 years of age [5, p. 8, 6, p. 65, 7, p. 83].

Among the reasons leading to increased mortality in malignant tumors of the stomach - its complicated forms, the prevalence of which exceeds 50,0% of cases and very often the disease manifests itself in its complications, as the early stages of the disease are usually asymptomatic or clinically mild and associated non-specific symptoms [8, p. 99, 9, p. 54, 10, p. 397, 11, p. 24].

**The aim of the work.** Resolve the main issues of surgical treatment of patients with acute complications of malignant gastric tumors.

**Materials and methods of research.** The work is based on the results diagnosis and treatment of 766 patients with acute complications of malignant tumors of the stomach on the clinical basis of the Department of Surgery №3 O.O. Bogomolets National Medical University for the period from 2006 to 2020.

The analysis of treatment results was performed in two groups of patients who were treated for two periods, which correspond to the stages of development, implementation in clinical practice and improvement of minimally invasive methods of endosurgical interventions.

□ I period (640 (83,6%)) - patients who were treated in our clinic from 2006 to 2015.

□ II period (126 (16,4%)) - patients who were treated in our clinic from 2016 to 2020.

Among patients, 754 (98,4%) patients were treated for malignant gastric tumors complicated by bleeding, of which 124 (16,4%) patients had bleeding associated with gastric stenosis, 12 (1,6%) patients were treated about tumor perforation. The vast majority of patients were men - 540 (70,4%), women were 226 (29,6%), with a ratio of men to women was 2.4:1. The age of patients from 19 to 94 years, but the largest number of patients in the age groups 61-70 years - 247 (32,2%), and 71-80 years - 150 (19,6%) patients.

In determining the state of hemostasis used a modified department (1997) classification of bleeding activity Forrest JAH Thus, 107 (14,2%) patients with endoscopic signs of ongoing bleeding were hospitalized (FIA - 32 (4,2%), FIB - 75 (9,9 %)), 383 (50,8%) patients with unstable hemostasis (FIA - 98 (13,0%), FIIB - 120 (15,9%), FIIC - 165 (21,9%)) and 264 (35,0%) of patients with endoscopic signs of stable hemostasis (FIII).

According to the classification of the severity of gastrointestinal bleeding adopted by the clinic (Academician Bratus V., 2001), 320 (42,4%) patients were diagnosed with moderate bleeding, 154 (20,4%) - moderate, severe - in 280 (37,2%), of which 29 (10,4%) were hospitalized in a state of severe hemorrhagic shock.

According to the International Union Against Cancer (UICC, 2016), patients were hospitalized for various stages of gastric cancer: I - 52 (6,8%), II - 107 (14,0%), III - 153 (20,0%), IV - 436 (56,9%).

**Results and discussion.** A total of 361 out of 766 patients underwent acute complications of gastric malignancies in the two periods, the total operative activity was 47,0%. Among them, 205 (56,8%) patients underwent surgery for tumor bleeding, 124 (34,3%) patients - bleeding in combination with gastric stenosis, 12 (3,3%) patients - tumor perforation, diffuse peritonitis .

A total of 405 (52,9%) patients were not operated, of which 320 (79,0%) patients due to the recognized inoperability of the oncological process, 80 (19,8%) patients refused surgical treatment and 5 (1,2%) of persons who were hospitalized in a state of severe hemorrhagic shock, which could not be stabilized and they died in the first two hours after hospitalization.

Radical operations were performed on 260 (72,0%) patients at different stages of the tumor process: I and Cr in situ - 52 (20,0%), II - 98 (37,6%), III - 81 (31,2%) , IV - 22 (8,5%); palliative-symptomatic - in 101 (28,0%) patients. The highest percentage of radical surgeries was performed in stages II and III of gastric cancer – 37,6% and 31,2%, respectively.

A total of 77 (21,3%) patients underwent emergency surgery, including: at the height of ongoing bleeding - 17 (4,7%), at the height of recurrence of gastrointestinal

bleeding - 48 (13,3%), and 12 (3,3%) patients underwent surgery for tumor perforation. Mortality after emergency surgery in the first period was 14,3% (4 patients), and in the second decreased almost twice – 8,3% (1 patient).

Radical surgical interventions in the first period were urgently performed 40 (51,9%), in the second period 12 (15,6%), non-radical in the first period - 37 (48,1%), in the second - 10 (13,0 %) - thus we achieved a significant reduction in emergency surgery in the second period of the study. Mortality after emergency radical surgery in two periods was 9,6% (5 patients), after non-radical – 31,9% (15 patients).

In the early delayed period, a total of 284 (78,7%) patients were operated on, of which 101 (35,6%) - in the first period and 183 (64,4%) - in the second. All patients in the delayed period were operated on for gastric tumors complicated by gastrointestinal bleeding or bleeding in combination with gastric stenosis. Early delayed radical surgical interventions in the first period were 75 (26,4%), in the second - 145 (51,0%), early delayed non-radical: in the first period - 26 (9,2%), in the second - 38 (13,4%). There were no fatalities after early delayed surgery.

Thus, analyzing the results of surgical treatment of patients over 15 years, we increased by almost 30,0% in the second period of surgical interventions performed in the early period (the difference is statistically significant, at the level of  $p < 0,05$ ) and, as a result - statistically significant ( $p < 0,05$ ) increase in the number of radical surgical interventions in the second period (almost twice - up to 70,7%) due to lymph node dissections in the volume of D2 by all oncological standards.

**Conclusions.** Thanks to our algorithm for surgical treatment of patients with acute complications of malignant gastric tumors, we achieved a 1,9-fold reduction in the frequency of emergency operations and almost 80,0% of patients operated in the early delayed period without fatalities.

Carrying out surgical interventions in the early period allows to increase the proportion of radical operations to 70,7% with lymph dissection in the volume of D2 by all oncological standards in 72,0% of cases.

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