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(RESEARCH ARTICLE)

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Long-term outcomes of surgical treatment in patients with colon cancer complicated by acute intestinal obstruction

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Abstract

Aim of the study: To assess the long-term outcomes of surgical treatment in patients with colon cancer complicated by acute intestinal obstruction, treated in a general surgical hospital setting.

Materials and Methods: The study included 71 patients, 49 (69.1 %) of whom presented with acute intestinal obstruction. Radical surgeries were performed in 63.2 % of cases, palliative cytoreductive surgeries in 28.6 %, and symptomatic procedures in 8.2 %. The mean age of patients was 65.3 ± 13.2 years. Follow-up lasted up to 36 months and included CT with contrast and colonoscopy.

Results: After discharge, only 54.6 % of patients sought oncological consultation in public healthcare facilities, and 9.1 % in private clinics. Among those who consulted an oncologist, 53.6 % received chemotherapy. Among patients with non-metastatic disease, recurrence was observed in 65.0 % of cases. The overall 1-year survival rate was 57.9 ± 6.3 %, and the 3-year survival rate was 32.7 ± 7.2 %.

Conclusions: Low rates of oncological follow-up and limited use of chemotherapy contribute to high recurrence rates and reduced overall survival among patients with complicated colon cancer.

Keywords: Cancer; Colon; Complications; Treatment Results; Survival; Chemotherapy

1. Introduction

Colorectal cancer (CRC) remains one of the most pressing issues in global oncology, ranking third in incidence and second in mortality among all malignancies [1, 2]. It is important to note that more than half of patients seek medical attention already with complications, necessitating emergency surgical intervention [3, 4]. In such cases, the primary goal of surgery is to save the patient's life, while oncological radicality becomes secondary, which negatively affects the long-term treatment outcomes [5, 6]. Therefore, the treatment of complicated forms of colorectal cancer requires further study to improve postoperative prognosis and overall survival.

Objective of the Study

To assess the long-term postoperative outcomes in patients who underwent surgical treatment for colorectal cancer complicated by acute intestinal obstruction in a general surgical hospital setting.

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2. Materials and Methods

The study included 71 (100 %) patients who underwent surgery for complicated colon cancer at the surgical department of the Municipal Emergency and Ambulance Hospital of Zaporizhzhia City Council. Acute intestinal obstruction observed in 49 (69.1 %) patients as the main complication. Among them were 24 (48.9 %) women and 25 (51.1 %) men with a mean age of 65.3 ± 13.2 years.

According to the localization of the tumor, lesions in the right colon were identified in 7 (14.3 %) patients, and in the left colon in 42 (85.7 %). Radical surgeries were performed in 31 (63.2 %) patients. D1 lymph node dissection was performed in 27 (87.1%) of them. Palliative cytoreductive surgery was performed in 14 (28.6%) cases, with lymphadenectomy in 4 (28.6 %) of these patients. Symptomatic procedures (cecopexy, bypass anastomosis) were performed in 4 (8.2 %) patients.

Tumor staging according to the TNM classification (8th edition, UICC and AJCC, 2017) revealed stage II in 8 (16.3 %) patients, stage III in 23 (46.9 %), and stage IV in 18 (36.8 %). In terms of tumor differentiation, adenocarcinoma G2 was diagnosed in 30 (61.2 %), G3 in 17 (34.7 %), and G1 in 2 (4.1 %) patients.

Postoperative complications occurred in 21 (42.9 %) patients, and early postoperative mortality was recorded in 5 (10.2 %) cases. After discharge, 44 (89.8 %) patients were referred to the Zaporizhzhia Regional Cancer Center for further specific treatment.

Follow-up monitoring included contrast-enhanced CT and colonoscopy every 3 months during the first year and every 6 months during the second and third years. The observation period lasted up to 36 months or until the patient's death.

All research procedures complied with the ethical standards of the Zaporizhzhia State Medical and Pharmaceutical University and the 1964 Helsinki Declaration and its later amendments.

3. Results

Out of 44 patients discharged from the hospital, only 24 (54.6 %) consulted an oncologist in a public facility, while another 4 (9.1 %) visited private clinics. The remaining 16 (36.3 %) patients did not receive specialized oncological care.

Among the 28 who sought oncological care, 15 (53.6 %) began chemotherapy. Another 5 (17.9 %) were under oncological observation without chemotherapy, and 8 (28.6 %) received symptomatic treatment at home due to contraindications to specific therapy.

Among the 20 patients with non-metastatic CRC: local recurrence was detected in 3 (15.0 %), regional recurrence in 4 (20.0 %), and distant metastases in 6 (30.0 %). Seven patients (35.0 %) had no recurrence. Among those who received chemotherapy, recurrences were recorded in 2 (13.3 %) cases.

The overall 1-year survival rate in the study group was 57.9 ± 6.3 %, and the 3-year survival rate was 32.7 ± 7.2 %.

4. Discussion

Evaluating long-term outcomes is crucial for analyzing the effectiveness of comprehensive treatment. In cases of complicated colon cancer, systemic chemotherapy plays a key role. Although literature data suggest that adjuvant chemotherapy is administered in 50–80 % of cases, in practice, only 30.2 % of patients receive it due to low follow-up rates with oncologists. This leads to high recurrence rates (60.5 % in non-metastatic CRC), which significantly exceed global rates (11.8–28.7 %). Consequently, overall survival remains low.

5. Conclusion

- Only 54.6 % of patients sought oncological care after hospital discharge.
- Among them, only half received chemotherapy, significantly limiting treatment effectiveness.
- Among non-metastatic CRC patients, recurrence occurred in 65.0 % of cases.
- The overall 1-year survival rate in the study group was 57.9 ± 6.3 %, and the 3-year survival rate was 32.7 ± 7.2 %.

Prospects for Further Research

The analysis of long-term treatment outcomes in patients who underwent surgery for complicated forms of colorectal cancer highlights the necessity of mandatory postoperative follow-up and, when indicated, the administration of specific chemotherapy for this patient group.

Compliance with ethical standards

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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