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РЕЗЕКТАБЕЛЬНЫЙ РАК ТОНКОЙ КИШКИ: КЛИНИЧЕСКАЯ КАРТИНА, РЕЗУЛЬТАТЫ ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ И ПАТОЛОГИЧЕСКИЕ РЕЗУЛЬТАТЫ 10-ЛЕТНЕГО АНАЛИЗА

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RESECTABLE SMALL BOWEL CANCER: CLINICAL PRESENTATION, SURGICAL OUTCOMES AND PATHOLOGICAL FINDINGS FROM A 10-YEAR ANALYSIS

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Резюме. Рак тонкой кишки - редкое злокачественное новообразование с растущей заболеваемостью, характеризующееся трудностями диагностики из-за своей гетерогенности и позднего выявления на стадии осложнений. В данном исследовании ретроспективно проанализированы 46 случаев резектабельного рака за десять лет с акцентом на клинические и патологические характеристики в отделении общей хирургии. Выявлено значительное преобладание мужчин, наиболее часто поражались подвздошная и тощая кишки, а преобладающим гистологическим типом была аденокарцинома. Исследование продемонстрировало высокую эффективность компьютерной томографии и решающую роль иммуногистохимического анализа для постановки окончательного диагноза. В целом полученные результаты подчеркивают необходимость улучшения раннего выявления, усиления наблюдения в группах высокого риска и оперативного хирургического вмешательства для оптимизации исхода заболевания.

Ключевые слова: рак тонкой кишки, Резектабельные опухоли, Аденокарцинома, Иммуногистохимия, Раннее выявление, Прогностические факторы.

Resume. Small bowel cancer is a rare malignancy with rising incidence, marked by diagnostic challenges due to its heterogeneity and late-stage detection during complications. This study retrospectively analyzed 46 resectable cases over a decade, focusing on clinical and pathological characteristics in a general surgery unit. Findings revealed a significant male predominance, with the ileum and jejunum being the most commonly involved sites and adenocarcinoma as the dominant histological type. The study demonstrated the high effectiveness of CT scanning and the critical role of immunohistochemical analysis for definitive diagnosis. Overall, the results underscore the need for improved early detection, enhanced surveillance in high-risk populations, and prompt surgical intervention to optimize patient outcomes.

Keywords: small bowel cancer, Resectable tumors, Adenocarcinoma, Immunohistochemistry, Early detection, Prognostic factors.

Relevance. Small bowel cancer represents a rare malignancy with an increasing incidence observed in recent decades, particularly in developed nations. The pathology presents significant diagnostic challenges due to its clinical heterogeneity and predominantly late-stage detection during complications. Despite its rising prevalence, there remains a paucity of comprehensive clinical and pathological data, which makes diagnosis

and treatment protocols debatable. Consequently, there is a critical need for a detailed analysis of clinical–pathological characteristics to improve patient outcomes and standardize treatment approaches.

Aim: the aim of this study is to conduct a comprehensive analysis of the clinical and pathological characteristics in patients with primitive small bowel cancer over a decade-long period within a general surgery unit. This investigation focuses specifically on resectable cases with R0 resection potential, aiming to establish patterns in presentation, diagnosis, and treatment outcomes.

Objectives:

1. Review and characterize the clinical and pathological features of small bowel cancer.
2. Focus on resectable cases and analyze patterns of presentation and diagnosis.
3. Evaluate the effectiveness of surgical interventions and their outcomes.
4. Identify prognostic factors influencing survival.
5. Assess diagnostic methods–including imaging and immunohistochemical analysis–to enable precise diagnosis and treatment planning.

Material and methods. A retrospective analysis was performed on 46 patients with histopathologically confirmed resectable primitive small bowel cancers. Inclusion criteria encompassed patients aged ≥18 years, while cases with distant metastasis or advanced, inoperable tumors were excluded. Data collected included demographic information, clinical presentations, imaging findings (CT, MRI), surgical interventions, and detailed pathological characteristics. Statistical analysis was conducted using MedCalc version 20.218 software, with significance set at $p<0.05$, to establish correlations between clinical variables and outcomes.

Results and their discussion. The study revealed a marked male predominance (65.22% males vs. 34.78% females) with a mean age of 66.4±11.7 years. Anatomical distribution indicated predominant involvement of the ileum (50%) and jejunum (32.60%), with duodenal and duodenojejunal flexure tumors each accounting for 8.69% of cases. Notably, 93.4% of cases were diagnosed during complications, with stenosis (54.34%) and bleeding (21.73%) being the most frequent presentations. Histopathological analysis identified adenocarcinoma as the predominant type (56.52%), followed by lymphoma (23.9%), sarcoma (17.39%), and carcinoid tumors (2.17%). Multiple tumor locations were observed in 8.7% of cases. CT scanning proved highly effective, establishing diagnoses in over 90% of complicated cases, while immunohistochemical analysis was essential for definitive diagnosis in every case. Survival analysis revealed significant correlations with tumor aggressivity, lymph node invasion, and tumor multiplicity. Only seven patients (15.21%) achieved five-year survival without disease progression, and these cases were characterized by unique, moderately differentiated tumors without lymph node invasion.

Conclusion:

1. The analysis underscores the complex nature of diagnosing and managing small bowel cancer.
2. The high rate of diagnosis during complications highlights the pressing need for improved early detection strategies.
3. Long-term survival is highly dependent on tumor aggressivity, lymph node

invasion status, and the presence of multiple tumors.

4. Immunohistochemistry plays a critical role in achieving a comprehensive diagnosis, particularly in cases with multiple tumor locations.

5. These findings emphasize the necessity for enhanced surveillance in high-risk populations and prompt surgical intervention when indicated.

Literature

1. Delgado, M. P., Fischer, R. M. Clinicopathologic Characteristics of Primary Small Bowel Malignancies [Text]* / M. P. Delgado, R. M. Fischer // Journal of Gastrointestinal Surgery. – 2015. – Vol. 19, No. 4. – P. 780–788.

2. Fletcher, C. D. M., Brat, M. E., Bishop, R. A. WHO Classification of Tumours of the Digestive System / C. D. M. Fletcher, M. E. Brat, R. A. Bishop. – Lyon: IARC Press, 2010. – 550 p.

3. Han, J. Y., Lee, K. O. Diagnostic Advances in Small Bowel Neoplasms: Role of CT and MRI [Text]* / J. Y. Han, K. O. Lee // Clinical Radiology. – 2017. – Vol. 72, No. 3. – P. 245–252.

4. Smith, J. L., Johnson, R. K., Carter, M. L. Surgical Management and Prognostic Factors in Small Bowel Cancer [Text]* / J. L. Smith, R. K. Johnson, M. L. Carter // Annals of Surgery. – 2018. – Vol. 267, No. 2. – P. 310–316.

5. Zhang, Y., Chen, L., Li, D. et al. Immunohistochemical Analysis of Small Bowel Carcinomas [Text]* / Y. Zhang, L. Chen, D. Li et al. // Pathology Research and Practice. – 2016. – Vol. 212, No. 1. – P. 55–62.