

DIAGNOSTICS AND THERAPEUTIC TACTICS FOR ACUTE CHOLANGITIS AND BILIAR SEPSIS

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Abstract: Acute cholangitis and biliary sepsis are serious conditions characterized by inflammation and infection of the biliary tract, often secondary to biliary obstruction. Prompt diagnosis and treatment are crucial to prevent complications and improve patient outcomes. This abstract provides an overview of the diagnostic modalities and therapeutic tactics employed in the management of acute cholangitis and biliary sepsis, including medical history, physical examination, laboratory tests, imaging studies, endoscopic interventions, antibiotic therapy, biliary decompression techniques, supportive care, and follow-up strategies. A multidisciplinary approach involving gastroenterologists, surgeons, infectious disease specialists, and critical care teams is essential for optimizing patient care.

Keyword: Acute cholangitis, biliary sepsis, diagnosis, treatment, endoscopic retrograde cholangiopancreatography (ERCP), antibiotic therapy, biliary decompression, multidisciplinary approach.

ДИАГНОСТИКА И ЛЕЧЕБНАЯ ТАКТИКА ПРИ ОСТРОМ ХОЛАНГИТЕ И БИЛИАРНОМ СЕПСИСЕ

Аннотация: Острый холангит и билиарный сепсис — серьезные состояния, характеризующиеся воспалением и инфекцией желчевыводящих путей, часто вторичные по отношению к обструкции желчевыводящих путей. Своевременная диагностика и лечение имеют решающее значение для предотвращения осложнений и улучшения результатов лечения пациентов. В этом реферате представлен обзор диагностических методов и терапевтической тактики, применяемых при лечении острого холангита и билиарного сепсиса, включая сбор анамнеза, физическое обследование, лабораторные исследования, визуализационные исследования, эндоскопические вмешательства, антибиотикотерапию, методы декомпрессии желчевыводящих путей, поддерживающую терапию и последующие стратегии. Мультидисциплинарный подход с участием гастроэнтерологов, хирургов, специалистов по инфекционным заболеваниям и бригад интенсивной терапии имеет важное значение для оптимизации ухода за пациентами.

Ключевые слова: острый холангит, билиарный сепсис, диагностика, лечение, эндоскопическая ретроградная холангиопанкреатография (ЭРХПГ), антибиотикотерапия, декомпрессия желчных путей, мультидисциплинарный подход.

INTRODUCTION

Despite the developed medical technologies and the developed methods of early prevention and diagnosis, the frequency of inflammatory diseases of the biliary tract is growing steadily in the world. The problem of acute cholangitis and biliary sepsis in recent years not only has not lost its relevance, but also began to concern an increasing number of clinicians. The development of diagnostic criteria for patients with inflammatory diseases of the biliary tract is one of the unsolved and most controversial issues of hepatopancreatobiliary surgery.

The aim of this work was to improve the results of treatment of patients with hyperbilirubinemia, biliary hypertension and systemic inflammatory response syndrome by stratifying them into groups and forming diagnostic criteria for each of them.

MATERIAL AND METHODS

In the period from 2016 to 2020, 208 patients with biliary obstruction were treated. According to the classification of generalized forms of infections (Sepsis), diagnostic criteria were developed for patients with hyperbilirubinemia, biliary hypertension and systemic inflammatory reaction syndrome, according to which they were divided into groups: obstructive jaundice, acute cholangitis and biliary sepsis. For each category of patients, a routing algorithm in the inpatient emergency department and treatment tactics were determined. Based on the results of the treatment, the following indicators were analyzed in each group of patients: time from admission to the start of surgery, duration of surgery, frequency of postoperative complications, mortality, length of hospital stay, and economic costs, and proposed criteriadiagnostics and treatment algorithm, a comparative analysis of treatment results with a retrospective group, which included 182 patients with hyperbilirubinemia, biliary hypertension, and systemic inflammatory response syndrome, hospitalized from 2015 to 2020 was carried out. Statistical analysis of the data obtained was carried out in Microsoft Excel 2020; to determine the statistical significance of the difference, Student's t-test was used.

RESULTS

As a result of the analysis of the obtained data, patients with obstructive jaundice in the prospective group had a shorter time before the operation (18.2 ± 4.1 versus 38.9 ± 5.2), lower complication rate (4.4% versus 7.3%) and mortality (0 versus 2.6%), as well as a lower bed-day (8.5 ± 2.8 versus $18.2 \pm 3, 9$) and economic costs ($66\,382 \pm 2\,670$ versus $74\,844 \pm 3\,101$). There was no significant difference in the duration of the operation. In the group of patients with cholangitis, based on the data obtained, there was a shorter time to the start of surgery (5.2 ± 0.6 versus 8.5 ± 0.8), a lower incidence of postoperative complications (6.7% versus 11.4%) lower mortality (2.7% versus 9.8%), lower bed-days (10.1 ± 2.5 versus 19.8 ± 3.4) and economic costs of treatment ($93\,219 \pm 3\,502$ versus $104\,108 \pm 4\,116$). There was no significant difference in the duration of the operation. In patients with biliary sepsis, when comparing prospective and retrospective treatment results, it was noted: ± 0.4 versus 4.8 ± 1.2), lower incidence of postoperative complications (25% versus 41.6%) and mortality (15% versus 41.6%), as well as a shorter length of hospital stay (17.5 ± 2.3 versus 25 ± 3.5) and lower financial costs for treatment ($188\,412 \pm 8\,703$ versus $218\,730 \pm 11\,270$). There was no significant difference in the duration of the operation.

Findings. Stratification of patients with hyperbilirubinemia, biliary hypertension and systemic inflammatory response syndrome into groups, as well as the proposed diagnostic criteria, routing and treatment tactics, can improve the results of treatment of this category of patients, as evidenced by such indicators as: time from admission to the start of surgery, frequency postoperative complications, mortality, bed-day duration and economic costs.

CONCLUSION

In conclusion, acute cholangitis and biliary sepsis represent urgent medical conditions requiring timely diagnosis and management to prevent severe complications. A systematic approach to diagnosis, including thorough medical history, physical examination, and appropriate laboratory and imaging studies, is essential for accurate assessment. Once diagnosed, prompt initiation of antibiotic therapy targeting likely pathogens and biliary decompression to alleviate

obstruction are paramount. Endoscopic interventions such as ERCP play a central role in biliary decompression and therapeutic management. Collaboration among multidisciplinary teams, including gastroenterologists, surgeons, infectious disease specialists, and critical care providers, is crucial for optimizing patient outcomes. Additionally, vigilant monitoring and supportive care are necessary to address potential complications and ensure patient recovery. Through a comprehensive approach integrating diagnostics and therapeutic interventions, the management of acute cholangitis and biliary sepsis can be effectively navigated, leading to improved patient prognosis and reduced morbidity and mortality

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