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Introduction of the Chinese expert consensus on postoperative adjuvant therapy for hepatocellular carcinoma (2023 Edition)

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Hepatocellular carcinoma (HCC) is a prevalent malignancy on a global scale, ranking as the third most common cause of cancer-related mortality[1]. China, being a prominent nation in terms of hepatitis B prevalence, exhibits a substantial incidence of liver cancer, accounting for nearly half of the worldwide cases. Unlike in developed nations, the majority of HCC patients in China receive a diagnosis at an advanced stage, with only approximately 20% being suitable candidates for surgical intervention. Even with the implementation of curative surgery, the 5-year postoperative recurrence rate of HCC can reach as high as 40%-70%, particularly in high-risk populations. The occurrence of postoperative recurrence and metastasis significantly impacts the overall survival rates of patients.

Multiple clinical practice guidelines and consensus for HCC, both domestic and international, emphasize the significance of postoperative adjuvant therapy as a crucial approach to mitigate postoperative recurrence in high-risk patients and extend survival[2]. Regrettably, numerous clinical studies conducted in this area have yielded unsuccessful outcomes, resulting in a dearth of standardized adjuvant treatment protocols for postoperative HCC. However, in 2023, a significant breakthrough unfolded at the annual meeting of the American Association for Cancer Research (AACR). The interim analysis of the IMbrave050 study

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confirmed that patients receiving atezolizumab plus bevacizumab experienced a 28% decrease in the risk of disease recurrence or death compared to those in the active surveillance group. A nationwide survey was conducted among hepatobiliary surgeons in comprehensive hospitals, oncology hospitals, and integrated Chinese and Western medicine hospitals to assess the clinical practice status of adjuvant therapy in HCC. The findings revealed that 87.7% and 85.5% of the physicians, respectively, considered the HCC guidelines and expert consensus as authoritative clinical treatment standards for acquiring knowledge pertaining to postoperative adjuvant therapy. In addition, a significant majority of physicians (81.8%) advocated for the incorporation of up-to-date evidence-based research findings into liver cancer guidelines and expert consensus. Furthermore, a notable proportion of physicians (35.0%) proposed the enhancement and standardization of clinical treatment pathways[3]. The introduction of the "Chinese Expert Consensus on Postoperative Adjuvant Therapy for Hepatocellular Carcinoma (2023)" serves as a crucial point of reference for clinical physicians in implementing postoperative adjuvant therapy.

As a directive of adjuvant treatment for HCC in China, this guideline is established through a meticulous synthesis of contemporary research discoveries and clinical practice observations, both within the domestic and international contexts. Encompassing fundamental principles, therapeutic alternatives, evaluation standards, and other pertinent facets, this consensus offers a comprehensive framework of guidance and recommendations to medical practitioners in the clinical setting. The consensus highlights the significance of adjuvant therapy and proposes that postoperative adjuvant therapy has the potential to reduce the recurrence rate, consequently improving both patient survival rates and quality of life. Additionally, it draws attention to the complexities and concerns surrounding postoperative adjuvant therapy, including the selection of appropriate treatment strategies and the assessment of treatment outcomes. Moreover, the consensus provides an overview of the fundamental principles guiding postoperative adjuvant therapy for HCC. These encompass the customization of treatment protocols tailored to individual patients' distinct circumstances, the adoption of comprehensive therapeutic approaches, and the prioritization of patient quality of life. These principles furnish clinicians with explicit recommendations, thereby facilitating the enhancement of treatment efficacy and patient survival rates. The consensus also introduces precise strategies and assessment criteria for adjuvant therapy. It includes the selection and implementation of diverse modalities, such as chemotherapy, radiotherapy, targeted therapy, and immunotherapy, alongside methodologies and benchmarks for gauging treatment efficacy[4]. Regarding systemic antitumor therapy, preliminary therapeutic benefits have been observed with the administration of tyrosine kinase inhibitors (TKI) such as lenvatinib and donafenib, as well as the use of immunosuppressive agents either alone or in combination. For instance, 1-year recurrence-free survival reached 80% in patients in BCLC stage A/B with high-risk factors of HCC recurrence after liver resection who were treated with donafenib and toripalimab[5]. These treatment protocols and evaluation criteria provide clinicians with clear procedural directives, consequently amplifying therapeutic effectiveness and improving patient survival rates.

IMbrave050 is a global, multicenter, open-label, phase 3 trial that focuses on adjuvant treatment for hepatocellular carcinoma[6]. The trial recruited 668 patients deemed at high risk of relapse following curative surgery or ablation (either radiofrequency ablation or microwave ablation) from 134 hospitals and medical centers spanning 26 countries. Patients were assigned randomly to either receive atezolizumab plus bevacizumab (A+T) or undergo active surveillance. At the data cutoff, the median duration of follow-up was 17.4 months in the "A+T" group and 17.6 months in the active surveillance group. Out of the 334 patients in the "A+T" group, 110 (33%) experienced recurrence or death, while in the active surveillance group, 133 (40%) out of 334 patients faced recurrence or death. The median Recurrence Free Survival (RFS) assessed by an independent review facility remained undetermined for both groups. However, the 12-month RFS rates were 78% for the "A+T" group and 65% for the active surveillance group, showing a statistically significant

difference (P = 0.012). The RFS evaluated by the study investigators was in concordance with the assessment by the independent review facility. Clinical benefits were consistent across most predefined subgroups for RFS. The safety analysis revealed that the incidences of adverse events of any cause were 98% in the "A+T" group and 62% in the active surveillance group, but most were considered as mild or moderate. Grade 3 or 4 adverse events were observed in 136 (41%) of 332 patients from the "A+T" group, and in 44 (13%) of 330 patients from the active surveillance group. Findings from the IMbrave050 study demonstrated a notable improvement in the recurrence-free survival of HCC patients at high risk of recurrence after undergoing curative resection or ablation when treated with adjuvant therapy comprising atezolizumab and bevacizumab. The disclosure of this eagerly awaited outcome indirectly validates the perspectives of the consensus in post-hepatectomy adjuvant therapy for liver cancer.

In conclusion, the 2023 Chinese Expert Consensus embodies the most current research and practices within the Chinese medical community pertaining to postoperative adjuvant therapy for liver cancer, rendering it highly significant. With the advancements in systemic treatment for liver cancer, we believe that clinical physicians will possess a wider array of treatment alternatives. Numerous ongoing clinical studies are investigating the efficacy of various single or combined treatment modalities for postoperative adjuvant therapy. The Chinese Expert Consensus Collaboration Group on Postoperative Adjuvant Therapy for Liver Cancer will consistently update and enhance this consensus in response to new evidence derived from evidence-based medicine, as more research findings are published in the future. This consensus will persistently contribute to the advancement of research and practice in postoperative adjuvant therapy for liver cancer in China.

DECLARATIONS

Authors' contributions

The author contributed solely to the article.

Availability of data and materials

Not applicable.

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Conflicts of interest

The author declared that there are no conflicts of interest.

Ethical approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

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