Editorial

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Expert consensus on sequential surgery after immune-targeted conversion therapy for advanced hepatocellular carcinoma in China

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SUMMARY Hepatocellular carcinoma (HCC) represents a significant global health burden, particularly in the Asia-Pacific region, where it is a leading cause of cancer-related mortality. In China alone, HCC accounts for approximately 367,700 new cases and 316,500 deaths annually; over 50% of patients are diagnosed at an advanced stage, limiting curative treatment options and resulting in poor survival outcomes. Systemic therapies combining immune checkpoint inhibitors (ICIs) with antiangiogenic targeted drugs have shown promise in converting unresectable HCC into resectable cases, potentially transforming clinical outcomes. The Chines expert consensus on sequential surgery following conversion therapy based on combination of immune checkpoint inhibitors and antiangiogenic targeted drugs for advanced hepatocellular carcinoma (2024 edition) provides an updated, multidisciplinary framework emphasizing sequential surgery post-conversion therapy. The consensus highlights treatment protocols, efficacy evaluation, and innovative adjuvant strategies to refine clinical practice and enhance survival outcomes in advanced HCC.

Keywords hepatocellular carcinoma (HCC), immuno-targeted conversion therapy, sequential surgery

Hepatocellular carcinoma (HCC) is the most prevalent primary liver malignancy and a leading cause of cancer-related deaths globally, with a disproportionate burden in the Asia-Pacific region (*1*). In China alone, HCC accounts for approximately 367,700 new cases and 316,500 deaths annually. Unfortunately, over 50% of patients are diagnosed at an advanced stage, limiting curative treatment options and resulting in poor survival outcomes (*2,3*).

From an international perspective, China's approach to the diagnosis and treatment of HCC, especially in the management of advanced HCC and the advancement of diversified treatment options, is of significant importance. It not only helps improve patient prognosis but also provides valuable insights for clinical research and practice worldwide.

Globally, advances in systemic therapies, particularly immuno-targeted approaches combining ICIs with antiangiogenic drugs (AATDs), have dramatically reshaped the treatment paradigm for advanced HCC(*4-6*). These combination therapies improve response rates and survival, enabling successful downstaging and conversion therapy. The potential for sequential surgeries following such conversion therapy has emerged as a pivotal strategy, offering radical resection opportunities and long-term survival benefits (*2,3*).

In China, the 2024 edition of the Chines expert consensus on sequential surgery following conversion therapy based on combination of immune checkpoint inhibitors and antiangiogenic targeted drugs for advanced hepatocellular carcinoma developed through collaboration among leading hepatology and oncology experts, marks a significant step forward. It builds upon prior iterations to establish a robust protocol for managing advanced HCC, including conversion therapy strategies, sequential surgery guidelines, and tailored adjuvant treatments based on resected specimen pathology (*2*).

The consensus introduces objective and practical criteria for treatment efficacy, emphasizing imaging and tumor markers. It also highlights the role of multidisciplinary teams in optimizing patient outcomes. Innovations in local and systemic therapies are harmonized, ensuring safe and effective transitions from conversion therapy to surgical interventions.

The consensus aligns with the broader goals of the Healthy China 2030 initiative to improve cancer care and achieve a 15% increase in overall 5-year survival rates for liver cancer (*7*). While primarily intended for the high-burden HCC population in China, its recommendations

provide a framework applicable to global clinical practice, offering hope for a transformative impact on advanced HCC treatment worldwide.

By integrating advanced systemic therapies with multidisciplinary surgical strategies, the consensus in China provides a comprehensive framework for managing this complex malignancy. This approach lays the foundation for improving both survival outcomes and the quality of life for patients with advanced HCC in China, and can serve as a valuable reference for clinical practice and research worldwide.

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