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Treatment Strategies in Hepatocellular Carcinoma

Charles W. Kimbrough and Timothy M. Pawlik
Department of Surgery, The Ohio State University Wexner Medical Center, Columbus, OH

Abstract

Hepatocellular carcinoma (HCC) is the most common primary liver malignancy worldwide, and a leading cause of global cancer-related mortality. However, a multitude of risk factors results in heterogeneous tumor biology that can demonstrate widely different clinical behaviors. Chronic inflammation represents the predominant etiology of HCC, and up to 80-90% of cases occur in the setting of cirrhosis. The underlying liver disease observed in most patients adds an additional level of clinical complexity not present in most other cancers. Careful consideration of the tumor biology, liver function, and the patient's performance status is necessary in order to select the best therapy. There exists a wide range of potential therapeutic options, and clinicians must know when to apply each. While early HCC can be managed with local control strategies such as surgical resection or ablation, more advanced tumors may be limited to loco-regional or systemic therapies. All tumors that meet criteria should be considered for liver transplantation. Often, the range of potential therapies will be limited by a patient's liver function and degree of cirrhosis. Additionally, in many cases there is insufficient evidence to clearly determine the best therapeutic option, and therefore these patients should be discussed within a multi-disciplinary tumor board. Future research is necessary to refine the optimal management strategy for HCC, including the role of novel treatments such as immunotherapy.

Key words: hepatocellular carcinoma, surgical resection, transplantation, liver-directed therapy, radiofrequency ablation