Current Treatment for Hepatocellular Carcinoma

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Hepatocellular carcinoma (HCC), or hepatoma, is the fifth most common cancer worldwide. In the United States, the incidence of HCC has increased by nearly 75% since the 1980s. The rise in HCC diagnoses in the United States has been attributed to an increased number of patients infected with viral hepatitis and better diagnostic techniques. The management of HCC begins with diagnostic confirmation, followed by accurate staging. Historically, the prognosis for patients with HCC has been poor; however, improved surveillance and radiologic imaging techniques have led to earlier detection of HCC and an increased opportunity to treat patients. Treatment options for HCC include surgical and nonsurgical modalities. Surgical therapy, by way of partial hepatectomy or orthotopic liver transplantation, is the only potentially curative surgical therapy, by way of partial hepatectomy or orthotopic liver transplantation, is the only potentially curative treatment for HCC, but most patients are not eligible for these procedures by the time of diagnosis. Palliative options include ablative techniques, radiation, and systemic therapies. As the incidence of this malignancy continues to rise, oncology nurses, who are an integral part of the multidisciplinary team caring for these patients, must be aware of current management for HCC. This article will provide an overview of the complex management of patients with HCC in the United States.

Key Words: liver neoplasms, liver transplantation, fibrosis

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Etiology and Risk Factors

Although the exact etiology of HCC is unknown, its prevalence parallels that of viral hepatitis. In fact, most cases are associated with HBV and HCV (Ryder, 2003). Alcoholism is another major risk factor associated with HCC in the United States (El-Serag & Mason, 1999). Alcoholism, HBV, and HCV are linked to the development of cirrhosis, which fosters an environment that is conducive to the development of HCC (Hassan et al., 2002). McCaughan, Koorey, and Strasser (2002) postulated that the ongoing process of hepatocellular injury, inflammation, regeneration, and repair characterizes cirrhosis favors carcinogenesis. The risk of developing HCC varies and correlates with the state and etiology of cirrhosis. Approximately 70% of hepatomas develop in cirrhotic livers, with an annual incidence of 3%–5% (Koea, 2001; Llovet & Beaugrand, 2003). Additional risk factors for the development of cirrhosis and HCC include hemochromatosis, primary biliary cirrhosis, autoimmune cirrhosis, and exposure to highly toxic carcinogens (e.g., aflatoxins) and androgens (Cha et al., 2002).

HCC has a lower global prevalence than HBV; however, HCV has been linked to more than 50% of the HCC cases in the United States (Monto & Wright, 2001). In the United States, approximately 3.9 million patients are infected with chronic HCV, compared to roughly 1.25 million with seroprevalence of HBV (El-Serag & Mason, 1999). An increase in