## Symptom Management in Hepatocellular Carcinoma

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Hepatocellular carcinoma (HCC) annually causes about one million deaths. Because of advanced stage at diagnosis, HCC carries a five-year survival rate of less than 5% in patients diagnosed with unresectable disease. Incidence for HCC is higher in men and individuals of Asian descent, where viral hepatitis, a leading cause of HCC, is endemic. This article will provide an overview of the complex symptom management of patients with HCC. The occurrence of multiple symptoms, including pain, fatigue, weight loss, and obstructive syndromes (e.g., ascites, jaundice) in patients with HCC is common. Because of limitations in the efficacy of current treatment options, aggressive symptom management is key to preserving physical functioning and quality of life in patients with HCC. A multidisciplinary team approach to symptom management of patients with HCC is critical, with oncology nurses playing an integral role.

n estimated 21,370 new cases of hepatocellular carcinoma (HCC) will be diagnosed in the United States in 2008, and 18,410 individuals will die of the disease (Jemal et al., 2007). HCC is the fifthmost common malignancy worldwide, causing about one million deaths annually (McCracken et al., 2007). Incidence of HCC is highest in Africa and Asia, where viral hepatitis is endemic. HCC often is diagnosed at advanced stages and prognosis generally is poor when the tumor is unresectable. The extremely guarded prognosis often is coupled with severe symptom occurrence, including pain, fatigue, anorexia, and ascites (Zhu, 2003), impacting patients' quality of life and functional status. As a result, this article will describe the current state of the science on symptom management in HCC, use a clinical case presentation to describe the symptoms experienced by patients with HCC while receiving treatment, and identify nursing implications for the symptom management of patients with HCC.

## Epidemiology

Epidemiologic studies show that HCC (see Figure 1), although uncommon in the United States and most developed countries, is one of the world's most frequent malignancies. This is caused, in part, by higher incidence rates found in some of the most populous regions of the world, including Southeast Asia and sub-Saharan Africa (Seeff, 2004). Chronic viral hepatitis, a critical risk factor for HCC, also is endemic in those regions. Other common risk factors for HCC include cirrhosis, aflatoxin exposure, alcohol or tobacco use, metabolic disorders (e.g., hereditary hemochromatosis), obesity, diabetes, dietary antioxidants, and anabolic steroids (Yu & Yuan, 2004) (see Figure 2).

## At a Glance

- Common signs and symptoms, such as pain, ascites, and jaundice, are potentially distressing in patients with hepatocellular carcinoma (HCC) because of advanced disease and guarded prognosis.
- Aggressive symptom management using an interdisciplinary model is key to maintaining quality of life in patients with HCC and should be initiated at diagnosis.
- Oncology nurses must be aware of the impact of multiple symptoms in patients with HCC.

The global age-adjusted incidence of HCC per 100,000 is 14.67 for men and 4.92 for women (Di Bisceglie, 2002). HCC accounts for 5.6% of all human cancers worldwide (Bosch, Ribes, Diaz, & Cleries, 2004). The lowest rates are found in developed countries, and the highest in developing countries (Di Bisceglie). For example, China has the highest incidence rates overall, approaching 35 per 100,000 people (Di Bisceglie). Incidence rates

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