Management of Patients Who Have Undergone Hepatic Artery Chemoembolization

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Hepatic artery chemoembolization (HACE) has been a prominent ablative treatment since the late 1980s. It is used to suppress intrahepatic tumor growth in an effort to palliate symptoms and perhaps prolong survival (Stuart, 2003). HACE is indicated for malignancies, including hepatozellular carcinoma (HCC), primary carcinoid tumors, and metastatic disease of the liver. This article primarily will discuss HCC.

HCC is the fifth most common cause of all malignancies and causes about one million deaths annually (Yu & Keeffe, 2003). HCC is the third most common cause of death in men and the seventh most common cause of cancer deaths in women (Yu & Keeffe). Surgical liver resection is the only cure for HCC; however, few patients are eligible to undergo this procedure. Hepatic artery chemoembolization (HACE) is a technique that delivers high concentrations of chemotherapeutic agents and blocks the blood supply to the liver for prolonged periods of time. HACE has demonstrated an overall increase in survival. The HACE procedure, pre- and postprocedure complications, and the care required by patients with HCC are critical for oncology nurses to understand.

Liver Anatomy and Physiology

The liver is the largest internal organ in the body, located in the upper right quadrant of the abdominal cavity. The liver’s right lobe is larger than the left, and the organ is subdivided further into eight segments that reflect its underlying vascular complexity (Devita, Hellman, & Rosenberg, 2001) (see Figure 1).

The common hepatic artery carries oxygenated blood to the liver and holds 25% of the liver’s total blood volume (Rospund & Mills, 1995). The common hepatic artery enters into the porta hepatitis medially to the common bile duct, branches off of the gastroduodenal artery to become the proper hepatic artery; hence, HACE allows for treatment of the tumor without affecting the remaining uninvolved liver (Cha, DeMatteo, & Blumgart, 2002; Venook et al., 1990).

Risk Factors and Etiology of Hepatocellular Carcinoma

HCC is a disease of multifactorial etiology. The most important predisposing factor is cirrhosis (Desjardins, 2002). Other risk factors...