Therapeutic Options in the Management of Colon Cancer: 2005 Update

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Recently, major developments in the treatment of colon cancer have emerged. These developments include improvements in surgical technique and staging and the introduction of new molecularly targeted pharmacologic agents. Improvements in surgical management involve enhanced staging techniques, allowing more accurate determination of risk of recurrence. Newer agents, such as oxaliplatin, cetuximab, and bevacizumab, now are approved for the treatment of colon cancer. The data associated with use of oxaliplatin in adjuvant and metastatic settings continue to mature; survival benefits are expected to become more fully apparent in the next two years. Bevacizumab, a monoclonal antibody that neutralizes vascular endothelial growth factor, when combined with irinotecan, 5-fluorouracil, and leucovorin (IFL), was superior to IFL alone in achieving median and progression-free survival. Cetuximab, a monoclonal antibody directed against the epidermal growth factor receptor, when given in combination with irinotecan, achieved an increased objective response and increased time to progression, compared with cetuximab alone, in patients refractory to irinotecan-containing regimens. In addition to surgical and pharmacologic developments, the recognition that genetics and molecular markers play an important role in carcinogenesis has heightened research to integrate this knowledge into practice. Nurses play a pivotal role in the care of patients with colon cancer and must be conversant in the new advances in treatment.

Although colon cancer is preventable and curable, it ranks third in cancer incidence and mortality in the United States. In 2004, 106,370 patients were expected to develop cancer of the colon and 56,730 to die from colon and rectal cancers combined (American Cancer Society, 2004a, 2004b). New therapeutic options may improve these statistics as they are integrated into standard practice. This article describes recent advances in chemotherapy that may help to prevent recurrence and manage advanced disease in patients with colon cancer. Potential side effects, specific nursing assessments, symptom management, and patient and family education will be discussed.

Surgical Staging

The most important prognostic indicator for patients with colon cancer is stage of disease at diagnosis (see Table 1). Accurate staging is essential to the appropriate therapeutic recommendation. Stage is determined by the depth of tumor penetration or invasion of the bowel wall, the number of lymph nodes involved, and the presence or absence of distant metastases. In 2002, the American Joint Committee on Cancer revised staging for colon cancer to reflect risk of recurrence and differences in survival for patients with stages II and III disease. Projected survival for patients with stage III disease differs significantly depending on substages. Additionally, some patients with stage II disease (IIA involves a T3 lesion, whereas stage IIB involves a T4 lesion) are at high risk for recurrence. Such patients often are offered entry into adjuvant therapy clinical trials. However, in 2004, the American Society of Clinical Oncology did not support routine use of adjuvant chemotherapy for patients with stage II colon cancer, based on direct evidence from randomized, controlled trials (Benson, Catalano, Meropol, O'Dwyer, & Giantonio, 2003).

Adjuvant therapy is designed to reduce the likelihood of disease recurrence. The identification of patients who may benefit from adjuvant therapy relies on sampling an adequate number of lymph nodes. In reviewing patient outcomes related to surgical sampling of lymph nodes

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