

Liver Metastases: Enhancing Outcomes in 2006

In the United States, the diagnosis of metastases to the liver is a far more common event than involvement of this organ by a primary tumor. The finding of metastasis to the liver has been regarded with dread since such involvement has traditionally been associated with a uniformly incurable clinical situation with only a short lifetime anticipated.

Happily, some rays of sunshine are beginning to percolate through the gloom and pessimism surrounding this difficult entity. Metastases from highly chemosensitive carcinomas, such as germ cell tumors of the testis, can be cured by modern systemic therapies. It is now well recognized that metastases to the liver from some gastrointestinal tumors, such as colorectal cancer, are not necessarily accompanied by distant metastases to other sites. Thus, local control of the metastases in the liver is assuming greater importance in management, and metastasis in the liver can often be followed by long-term survival and cure.

This issue of *Cancer Control* examines progress that has been made in identifying and managing metastases to the liver from colorectal cancer — perhaps the primary site that most commonly metastasizes to the liver. First, Dr. Choi describes the roles for computed tomography, magnetic resonance imaging, positron emission tomography, and intraoperative ultrasound not only in screening the liver for the presence of metastases, but also in evaluating the number, size, and location of metastases in the organ — all critical factors when local interventions are being planned.

No review in oncology would be complete without a discussion of pathology, and Dr. Centeno outlines the increasing amounts of valuable information that can be obtained from present-day pathology assessment of biopsy and resection specimens from the liver. Adding to the power of “standard” pathology, the detailed evaluation of gene and protein expression by microarray analysis shows great promise, as explained by Dr. Alvarado and colleagues, to predict different biologic characteristics such as metastatic potential in individual tumors holding the exciting possibility to logically plan optimal management for individuals rather than groups of patients.

Over the last few decades, evidence has accumulated indicating that resection of liver metastases is an important part of the overall management of patients with colorectal cancer. Such resections prolong sur-

vival and can often be curative. Dr. McLoughlin and colleagues outline the selection of patients, the surgical principles involved, and the outcomes from this approach, and they review the evidence relating to incorporating other local as well as systemic treatments with the surgery. Other local approaches, of course, include hepatic artery infusion of chemotherapy, which is reviewed by Drs. Homsy and Garrett, and radiofrequency ablation, which is reviewed by Drs. Feliberti and Wagman.

A second part of this issue on liver metastases is devoted to the intriguing and fascinating topic of neuroendocrine tumors. Although uncommon, these tumors require special expertise in diagnosis and management. Dr. Nasir and colleagues highlight the clinical value of knowing the expression of tumor somatostatin receptor immunohistochemical subtypes when planning systemic treatment for these diseases. In contrast to the situation with colorectal cancer, the presence of extrahepatic metastases from neuroendocrine cancers does not automatically negate the possibility of resection of neuroendocrine tumor metastases in the liver. Dr. Hodul and colleagues describe the advantages for partial resection or debulking surgery — an approach not considered for colorectal cancer metastasis — in palliating symptoms and lengthening survival. Finally, Dr. Strosberg and colleagues describe recent experience at our institute using selective hepatic artery embolization in patients with metastatic carcinoid and pancreatic endocrine tumors.

I hope this 2006 review of the “state of the art” in managing hepatic metastases from colorectal and neuroendocrine tumors will be of assistance in optimizing care of your patients with these entities. Progress is continuing, and I am confident that a summary written 5 years from now will describe even better approaches and outcomes.

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