



Thomas H. Tang, MD

New paradigm in the medical treatment of colorectal cancer

Florida Cancer Institute

Thomas H. Tang, MD

One of the major advances in oncology over the last several years is the introduction of several new agents with different mechanisms," notes Thomas H. Tang, MD, of Florida Cancer Institute. "These new agents have shown substantial activity against colorectal cancer in clinical trials and have changed the landscape of the medical management of colorectal cancer."

Historically, 5-Fu (5-fluorouracil) had been the only effective chemotherapy for colorectal cancer, explains the doctor. When used in combination with leucovorin, it prolongs survival from six to eleven or twelve months in patients with metastatic colorectal cancer and increases 5-year survival by 30% in patients with stage III colorectal cancer after complete resection.

"Irinotecan (Camptosar®), a cytotoxic topoisomerase I inhibitor, is the first of the four drugs approved by the FDA over the last five years for the treatment of metastatic colorectal cancer," says Dr. Tang. "In a landmark study published in 2000, irinotecan, in combination with 5-Fu and Leucovorin, was shown to prolong the survival of patients, and this regimen soon became the standard of care in the treatment of metastatic colorectal cancer."

Oxaliplatin (Eloxatin®) is a platinum derivative developed in Europe. The addition of oxaliplatin to 5-Fu and leucovorin doubles the response rate and prolonged survival in patients with metastatic colorectal cancer. A large U.S. intergroup trial initially presented in 2002 showed that a regimen of Oxaliplatin/5-Fu/Leucovorin is superior to Irinotecan/5-Fu/Leucovorin. This led to the approval of this cytotoxic agent by the FDA in 2002 for the treatment of metastatic colorectal cancer. Oxaliplatin-based chemotherapy soon became the first line treatment for metastatic colorectal cancer.

"Recently, a study from France also showed adding oxaliplatin to a regimen of 5-Fu and leucovorin improves the adjuvant treatment of colon cancer after surgical resection," notes Dr. Tang. "Bevacizumab (Avastin™) and Erbitux® are the two

"The advancement of basic and clinical research over the last several years has significantly changed the paradigm in the treatment of advanced colorectal cancer."

- Thomas H. Tang, MD

monoclonal antibodies against target molecules approved in 2004. They have much better side effects profiles compared to cytotoxic chemotherapy agents."

Bevacizumab is a humanized monoclonal antibody against vascular endothelial growth factor which is involved in the angiogenesis of neoplasm. In 2003, a stunning U.S. study showed that the addition of bevacizumab to irinotecan/5-Fu/Leucovorin resulted in significant and clinically meaningful improvement in survival among patients with metastatic colorectal cancer. The median duration of survival increased to 20.3 months from 15.6 months. Bevacizumab is the first drug targeting tumor angiogenesis that showed clinical efficacy.

"Recently, Cetuximab (Erbix) became the newest member in the treatment of colorectal cancer," adds Dr. Tang. "It is a monoclonal antibody against epidermal growth factor receptor which is responsible for cell signal transduction. It is approved for use in patients whose tumor expresses EGFR with irinotecan-resistance.

"The advancement of basic and clinical research over the last several years has significantly changed the paradigm in the treatment of advanced colorectal cancer, and considerably improved the survival and quality of life of our patients. Without doubt, knowledge from scientific research and clinical trials will continue to shape the treatment of colorectal cancer in the future."

FHCN

Leading the charge against cancer...

Dr. Tang welcomes calls from those who are interested in learning more about new cancer treatment and related topics. For further information, please call (352) 596-1926. Florida Cancer Institute is located at 11307 Cortez Blvd., Brooksville, FL 34613.

- Board Certified by the American Board of Internal Medicine, with subspecialty certification in Medical Oncology and Hematology
- Fellowship, Medical Oncology and Hematology, New York University Medical Center/ Kaplan Comprehensive Cancer Center
- Medical Degree, West China University of Medical Sciences, People's Republic of China and the University of Geneva, Faculty of Medicine, Switzerland
- Internal Medicine Residency, Lenox Hill Hospital, New York, NY
- Extensive research, B-cell activation and tumor metastasis