

Causes and management of early colorectal cancer

It is my great pleasure to invite you to read the contributions in this Special Issue of *Chinese Clinical Oncology* on the causes and management of early colorectal cancer. Our choice of topics was, in part, dependent on identifying topics of interest written by the best authors.

It seems entirely appropriate for the issue to begin with an article on “Practical Genetics of Colorectal Cancer” by Henry T. Lynch, M.D. and Trudy G. Shaw, M.A., as familial and hereditary forms of colorectal cancer are a major public health problem worldwide. Of course, Dr. Lynch is widely known for the syndrome of hereditary nonpolyposis colorectal cancer that bears his name. This article is important for practicing physicians since it identifies the impact of this genetic disorder on the screening and management of patients, as well as a variety of associated extracolonic tumors, endometrial cancer in particular. In addition, the authors discuss familial adenomatous polyposis, the most common syndrome associated with polyp formation.

Genetic factors are not the only cause of colorectal cancer, and Drs. Ningqi Hou, Dezheng Huo, James J. Dignam discuss environmental and dietary contributions to the development of this malignancy. In addition, the authors describe proactive chemoprevention, including intake of garlic, vitamin B6 and magnesium, active living, maintaining a healthy weight and waist, avoiding or reducing red meat, alcohol, and smoking. These may not only be important in reducing the risk of developing colorectal cancer, but also in reducing the risk of recurrence after surgery for colorectal cancer, with or without adjuvant therapy.

By far, the greatest numbers of cures of early colorectal cancer result from surgical resection, and we therefore have included an article by Drs. Najjia Mahmoud and Cary B. Aarons on the evolution of surgical management for this malignancy. Included in this article are discussions of laparoscopic resection of colon and rectal tumors, the role of total mesenteric excision for rectal cancers, metastectomy and local excision for early rectal cancer.

The surgical treatment of colorectal liver metastases represents one of the opportunities to cure patients with metastatic disease, as discussed by Drs. Amanda B. Cooper and Steven A. Curley. The authors stress that technical competence is importance in liver resections, but equally or more important are patient selection, imaging, knowledge of natural history and the undertaking of resection within the setting of a multidisciplinary program.

No topic in the adjuvant treatment of colon cancer engenders more discussion than patients with stage II, node-negative, disease, as discussed by Drs. David N Church, Rachel Midgley, and David J Kerr. Most patients with stage II colon cancer are cured by surgery, but adjuvant chemotherapy can reduce recurrence and death for a small proportion of selected patients. The ability to define prognosis beyond standard clinicopathologic features has been enhanced by newer prognostic markers, such as gene expression profiles, as well as predictive markers such as microsatellite instability, which confers better prognosis and perhaps predicts for resistance to 5-FU.

DR. Weijing Sun and I discuss stage III colon cancer. In this population, the risk/benefit of adjuvant chemotherapy has led to widespread acceptance of treatment, but with continued discussion of patient selection and the decision to use single-agent fluoropyrimidines or combination chemotherapy. The current standard for combination chemotherapy is a combination of a fluoropyrimidine and oxaliplatin—either XELOX or FOLFOX. Irinotecan, bevacizumab and cetuximab have all failed to improve standard therapy, although studies are addressing the optimal duration of treatment to maintain efficacy and reduce toxicity.

Dr. Daniel Sargent and his colleagues, Drs. Lindsay A. Renfro and Qian Shi, discuss an extraordinary project, the Adjuvant Colon Cancer End Points (ACCENT) database, which was designed to study early stage colon cancer with data pooled across many similar trials. The ACCENT database now contains individual patient data from over 33,000 patients enrolled onto 25 adjuvant colon cancer trial. This collaboration has allowed for the development of new metrics of success of adjuvant therapy, including the establishment of 3-year disease-free survival as the standard primary endpoint for colon adjuvant trials.

The final article in this issue, by Dr. Bruce Minsky, address the important subset of patients with tumors of the rectum, who require impeccably technical surgery, consideration of radiation therapy to reduce locoregional failure, and the proper selection and timing of chemotherapy. The standard role for total mesenteric excision is emphasized, as are newer trends in treatment such as deletion of radiation for tumors in the upper third of the rectum, as well as total neoadjuvant approaches in

which surgery may be the last—rather than the first—treatment modality.

I hope that the readers of this Special Issue will enjoy and learn from some of the world's thought leaders in early colorectal cancer, and use this information in their daily practice.



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