Journal of the National Comprehensive Cancer Network

Colon Cancer: The New Breast Cancer

If you read articles about hereditary cancer syndromes, biological markers that predict risk and benefit from targeted therapies, optimizing adjuvant chemotherapy regimens, risk stratification based on tumor biology and stage considerations, emerging molecular diagnostic tests, and quality of life in cancer survivors, you would be forgiven for thinking that they are about breast cancer. So welcome to the new breast cancer: colon cancer.

This issue of the *Journal of the National Comprehensive Cancer Network* highlights many of the new trends in colorectal cancer management. These trends epitomize the kind of changes that have redefined care in breast cancer and that are now being extended into other major tumor types. Heterogeneity that is a familiar part of the treatment dialogue in lymphoma and breast cancer is now also seen in colon cancer, promising a new wave of refinements in pathology, treatment selection, and tailored therapies.

These are welcome changes. Colorectal cancer accounts for the second largest toll of cancer deaths in the United States, after lung cancer and before breast and prostate cancers. Recent years have shown real progress with the availability of new chemotherapy agents and biologically targeted drugs that seem to improve outcomes in both advanced and early stage disease. Insights into molecular subtypes of colon cancer may determine both risk and treatment.

What can experts in colon cancer learn from breast cancer? First, guidelines may need to be restructured to accommodate various colon cancer subsets and provide recommendations for each tumor type, first in the metastatic, and eventually in the early stage setting. The sooner this framework changes, the easier it will be to incorporate subsequent guidelines evolution. Second, and this too is clearly already happening, prospective studies must be organized along the lines of the tumor subsets. Reliance on retrospective analyses will quickly become outdated, as more-modern trials with pre-specified subgroups for analysis and specifically tailored for biologically defined subsets replace backwards-looking data.

Finally, guideline panels will need to wrestle with the strengths and weaknesses of biomarker and subset analysis. This is always a vexing issue in breast cancer, and it certainly will be in other tumor types as well. Answers are frequently less clean and precise than specialists and guideline authors would like.

As we explore the biology of various cancers and develop newer and better treatments, it becomes ever more critical to factor tumor heterogeneity into treatment guidelines and actual clinical practice. Colon cancer is having its moment; which cancer will be next?

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Dr. Burstein's clinical research interests include novel treatments for early- and advanced-stage breast cancer and studies of quality of life and health behavior among women with breast cancer. He has written widely on breast cancer in both traditional medical journals and on the web, including *New England Journal of Medicine* and *Journal of Clinical Oncology.* International committees focusing on cancer treatments that he has or continues to participate in include the NCCN Clinical Practice Guidelines Breast Cancer Panel, St. Gallen Breast Cancer Panel, CALGB Breast Cancer Committee, ASCO Health Services Research and Clinical Research Committees, the National Quality Forum Breast Cancer Technical Panel, and other ASCO expert panels.