

“October Is ...”

October brings the aroma of apple cider simmering on the stove, hay rides under a full moon, jack-o-lanterns lining the front porch, candy galore, and hundreds upon hundreds of children (some adults, too) dressed as their favorite characters crowding into the streets. But for some 231,000 women this year, October will no longer be “orange.” It will become “pink” forevermore. This issue, which is dedicated to those women diagnosed with breast cancer this year, focuses on advances in early detection and screening for this all-too-common disease.

Breast cancer affects 1 out of every 10 women by age 85 years. Even more common are benign breast diseases: 80% of women referred for a diagnostic biopsy will have benign findings and only 20% will have breast cancer. Much research focuses on breast cancers but little is known about the significance of their benign counterparts. Within this broad range of benign entities is a subset of lesions that seem to infer a greater risk of future breast cancer development — on the order of 5- to 18-fold, roughly a 20% lifetime risk. The first article in this issue by Dr Kiluk and colleagues provides a review of these benign lesions believed to impart “high-risk” status. The authors also generate an algorithm to help guide clinicians in the management of these entities when encountered. Once identified on a biopsy, these “high-risk” lesions may convert a woman from normal screening guidelines (monthly breast self-examination, annual mammography starting at age 40, and annual clinical breast examination starting at age 40) to “high-risk” surveillance (monthly self-examination, clinical breast examination every 6 months, and annual mammography starting 10 years younger than the youngest family member with breast cancer or age 40), chemoprevention, or prophylactic surgeries. Not all “high-risk” lesions confer the same degree of risk and keeping “abreast” of them will aid in positioning the individual woman appropriately along the continuous spectrum of risk.

A subset of these “high-risk” women is *BRCA1/2* gene mutation carriers. These carriers have a 50% to 80% lifetime risk of developing breast cancer and are offered the same “high-risk” options aforementioned for sporadic breast cancer. While prophylactic surgeries are not common in the garden-variety “high-risk” women, *BRCA1/2* mutation carriers are much more likely to choose surgical intervention. A review by Dr Agnese and associates highlights many of the issues

specific to mutation carriers. For example, how do you monitor a woman who has had bilateral mastectomies with breast reconstruction? Her risk of future cancer development on the native breast flaps is believed to be approximately 3% to 5%. What about the effect on body image, quality of life, and inducement of menopause? The authors provide an outline of what is known and what is speculated.

New and improved breast imaging technologies are needed for “high-risk” women who opt for increased surveillance, whether they are gene mutation carriers or have a high-risk for sporadic breast cancer. What is the best test for these women and also for the screening population at large? The field of breast-specific imaging is rapidly advancing. Clinicians need to know what options are available and when to use these modalities to select the most appropriate studies based on the individual’s risk, age, and breast density. Dr Berman provides a description of the mechanics behind the different breast imaging modalities and outlines the evidence-based strengths and weaknesses of each.

The goal of breast imaging is to detect breast cancer by seeing inside the breast itself. For many years, clinicians and researchers have known that the vast majority of breast cancers arise in the ductal system. An intraductal approach might offer a novel window then for seeing into the breast. Dr Papanicolaou believed that nipple fluid cytology was as informative as a cervical scraping cytology. His Pap smear has become standard of care and has converted cervical cancer from the No. 1 killer of women to a much less prominent entity today. However, his nipple fluid smear did not gain much attention until recently. The article by Drs Lang and Kuerer highlights the many approaches to accessing the ductal cells, such as ductoscopy, ductal lavage, and nipple aspiration. Once the ductal cells are obtained, a cytology examination can be performed to identify normal, atypical, and cancerous ductal cells and aid in clinical management. Further investigation into genomics and proteomics can be conducted, and the potential translational research initiatives seem endless. Examples of the proteomic approach to ductal fluid obtained from nipple aspiration or ductal lavage specimens are presented in the paper by Drs Laronga and Drake. Their article also includes a basic review of the proteomic approach to breast cancer using other sample sources such as sera and tissue.

The next two papers center on health disparities in breast cancer. In the first of these, Drs Wells and Roetzheim review the plethora of components comprising health disparities such as socioeconomic status, access to care, educational level, literacy, and cultural differences. Some of these seem obvious, while others are less apparent. An example of such a disparity is the focus of a paper in this issue in which Dr Walker and colleagues report on consenting women for a breast core biopsy. All patients had the standard informed consent process for their institution, but one half of them were also randomized to review a flip chart demonstrating the procedure. The impact of the flip chart was different between the races, but you'll have to read the paper to learn the differences.

Our Cancer, Culture and Literacy feature includes reports of two studies, both relating to screening. In the first, Dr Reyes-Ortiz and coauthors demonstrate that those in a Latin American/Caribbean population who were least likely to participate in recommended cancer screening activities were older adults with low educational and/or literacy levels. Clearly, special care is needed to correct this deficiency. Similarly, Dr Jolly and colleagues found that in a practice in Jamaica, 11%

of women had not received a Pap test at all, and another 38% had not received one in the past year. There is more work to be done!

To close out this issue, Dr Finn and colleagues provide us with an informative special report on the use of stereotactic radiosurgery in the management of metastatic tumors in the spine.

In summary, for most of us, October is a time to watch the leaves change color, prepare for the upcoming busy holiday season, show your spirit at homecoming, and be a kid again. For others, October is a time of awareness and fear, of racing or walking in honor/memory of courageous women, of celebrating survivorship, and of renewing hope and dedication to the cause of finding a cure. So this October, let us all take time to make a difference and **THINK PINK**.

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