Letters to the Editor

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Accepted for publication July 17, 2018.


PAM50 and Pathologic Tumor Size

To the Editor.—PAM50, a 50-gene mRNA assay marketed by Prosigna (NanoString Technologies, Seattle, Washington), received US Food and Drug Administration approval as a breast cancer prognostic signature in 2013. This technique is advantageous as it allows laboratories to perform this test locally using designated equipment. PAM50 classifies breast cancer into intrinsic molecular subtypes and evaluates the risk of recurrence (ROR), incorporating pathologic data (gross tumor size and number of metastatic lymph nodes).

This technology was made available at my hospital, a cancer institute, and I was asked, per the manual, to select the area for analysis and to indicate the number of metastatic lymph nodes and gross tumor size.

Size is an important and independent prognostic factor in breast cancer for both node-negative and node-positive cases. Pathologic evaluation of tumor size (pT) can be difficult for varied reasons, some related to confusing guidelines such as the ones endorsed by the American Joint Committee on Cancer (AJCC) TNM staging system.1 Regardless of the recognition within these guidelines that pT based on gross measurements may be inaccurate, the preferred recommendation for “larger” lesions is to use the gross measurement nonetheless. Regarding small invasive carcinomas that can be submitted in one block, these are assessed microscopically. In the College of American Pathologists (CAP) breast protocol, “the best size for AJCC T classification should use information from imaging, gross examination and microscopic evaluation.”2

As a breast pathologist I follow the CAP guidelines for breast carcinoma reporting and confirm all gross tumor sizes microscopically. In the case of discrepancies, microscopic tumor size is preferred for pT designation.

The gross measurement of a breast carcinoma can underestimate or overestimate its real size.3,4 This occurs by the presence of an in situ component, fibrotic stroma, reactive changes of a biopsy site, or particular features of the tumor (eg, carcinomas with lobular features). In a recent work,5 using gross size resulted in a change in T stage in 44.8% of cases.

In conclusion, the Prosigna PAM50’s record of gross tumor size for ROR evaluation is largely unsubstantiated. Size discrepancy between recorded gross tumor size and pT (usually microscopically confirmed) can occur. In ROR evaluation the gross tumor size is simplistically recorded as T1 or T2. Even minor differences between gross and microscopic tumor size can result in a different T stage.

One would wonder about the impact of the guidelines for PAM50 ROR evaluation on individual breast cancer treatment.

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Accepted for publication August 7, 2018.

doi: 10.5858/arpa.2018-0300-LE

Are You a Doctor, Too?

To the Editor.—In the June 2017 issue of Archives of Pathology & Laboratory Medicine, Carlquist et al1 described the results of an informative survey of physicians regarding the relationship between social media and dermatopathology. The authors demonstrated the utility of social media as a “powerful tool with the ability to instantaneously share dermatopathology with medical professionals across the world,”2(p184) pointing out its use as a platform for “education and collaboration.”2(p184)

Although the investigators focused primarily on social media in the subspecialty of dermatopathology, they did refer to its universal benefits, which apply to any specialty in medicine, and include discussing challenging cases, bringing awareness to rare diagnoses, and uniting physicians with similar interests. If in 2011, 87% of physicians used social media,3 it is safe to assume their use is close to universal today.

However, as stated by Carlquist et al, “physician use of social media is often viewed as a controversial practice,”4(p187) which is likely because of questions regarding appropriateness of content and setting. Concerns include maintaining patient privacy and applying safeguards to ensure it; obtaining appropriate permissions from institutions and people when publishing or posting content related to their work, such as content from lecturers or speakers; ensuring that denigrating comments about colleagues or places of work are not posted; and not using hours allotted to hands-on conventional patient care activities for social media interactions. Further education can facilitate use and lessen the aforementioned risks, which will simultaneously maximize the constructive use of social media in medicine in general and in pathology in particular.

A recent dramatic increase in the number of publications addressing its benefits points to the significance of social media use and its power as a tool for professional advocacy. For example, Haller et al5 demonstrated, by way of a survey, the value of a pathologist’s participation in disease-centered Facebook groups in terms of improved understanding and lessened anxiety for patients. There was an almost unanimous agreement (98%) that having a pathologist involved in patient support groups is a “good thing,” with 83% of participants wanting more pathologists involved.