Novel findings support original categorization of HER2

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(HealthDay)—The original classifications of human epidermal growth factor receptor 2 (HER2) categorization by fluorescent in situ hybridization (FISH) have been supported by recent data, according to a report published online Aug. 29 in the Journal of Clinical Oncology.

Michael F. Press, M.D., from the University of Southern California Norris Comprehensive Cancer Center in Los Angeles, and colleagues reevaluated the HER2 FISH status of patients from Breast Cancer International Research Group (BCIRG)-005/006/007 clinical trials according to current American Society of Clinical Oncology and the College of American Pathologists (ASCO-CAP) guidelines, which designate five groups based on HER2 FISH ratio and average HER2 gene copy number per tumor cell. Data were included for 10,468 patients.

The researchers found that of the patients included in the trial, 40.8, 0.7, 0.5, 4.1, and 53.9 percent were in ASCO-CAP in-situ hybridization (ISH) groups 1, 2, 3, 4, and 5, respectively. Similar distributions were seen in screened and accrued subpopulations. Among accrued patients, there was a strong correlation for FISH group 1 breast cancers with immunohistochemistry 3+ status; groups 2, 4, and 5 were strongly correlated with immunohistochemistry 0/1+ status. Among patients accrued to BCIRG-005, compared with group 5, group 4 was not associated with significantly worse disease-free survival or overall survival. Among patients accrued to BCIRG-006, significant benefit from trastuzumab therapy was seen for group 1 but not group 2.

"Our findings support the original categorizations of HER2 by FISH status in BCIRG/Translational Research in Oncology trials," the authors write.

Several authors disclosed financial ties to the biopharmaceutical industry.

More information: Abstract
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