Research

Cardiac Outcomes After Adjuvant Breast Cancer Chemotherapy

Cardiac monitoring is part of the care of patients with breast cancer receiving combination chemotherapy and trastuzumab. Dang et al explored the cardiac safety of combination therapy with trastuzumab and a nonantracycline agent. Only a few of the 406 patients with node-negative, ERBB2-positive breast cancer evaluated developed grade 3 cardiac dysfunction or a significant asymptomatic decline in the LVEF, suggesting that LVEF monitoring in these patients may not be warranted. Milano et al provide an Editorial.

Editorial 21

PD-L1 Expression Heterogeneity in Non–Small-Cell Lung Cancer

Immune checkpoint inhibitors targeting the PD-1 axis have shown therapeutic benefit in advanced-stage non–small-cell lung cancer (NSCLC). McLaughlin and colleagues used conventional immunohistochemical staining and quantitative immunofluorescence to evaluate tumor PD-L1 expression in 49 NSCLC cases. They found heterogeneity of signal within individual tumors and marked interassay variability and discordance, suggesting that assay performance is a factor in the assessment of PD-L1 staining as a classifier of response to therapy. Bhaijee and Anders provide an Invited Commentary, and Hansen and Siu provide a Viewpoint.

Viewpoint 15 Invited Commentary 54

Trends in Postmastectomy Care After Guideline Changes

National Comprehensive Cancer Network guidelines suggest postmastectomy radiotherapy (PMRT) for patients with tumors smaller than 5 cm and 1 to 3 positive lymph nodes. Frasier et al asked whether these recommendations were practice changing and whether PMRT was affecting subsequent breast reconstruction. Using the SEER database, 62,442 women with stage I to III breast cancer were classified as “radiotherapy recommended,” “strongly consider radiotherapy,” and “radiotherapy not recommended.” Only the second group demonstrated a change in practice, with a significant increase in PMRT since 2007. There was no decrease in breast reconstruction rates in this group. Recht provides an Invited Commentary.

Invited Commentary 102

Germline Variants in Targeted Tumor DNA Sequencing

The tumor DNA sequencing technology used to identify actionable gene mutations in cancers can also assess potential germline variations that may predict the development of cancer or other diseases. Schrader et al evaluated matched normal DNA from 1566 individuals whose tumors were also being sequenced for therapeutic decision making. Disease-associated germline variants were identified in 16% of patients, and 198 patients had variants associated with cancer susceptibility. These data raise the question of using sequencing information obtained from tumor DNA to counsel families concerning genetic risk of multiple diseases, including cancer.

Clinical Review & Education

Current Therapy and New Directions in Hairy Cell Leukemia

Hairy cell leukemia (HCL) is a rare B-cell malignant neoplasm that presents clinically with cytopenias and massive splenomegaly. Its treatment has recently evolved with the use of nucleoside purine analogues inducing long-duration remissions in most patients. Sarvaria et al review HCL, including combination therapies and new approaches that may be beneficial for patients once resistance to standard treatment is acquired. The finding that BRAF mutations are present in nearly all cases of HCL underscores the importance of targeting the BRAF/MEK/ERK pathway in this disease.