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IN BRIEF

SKIN CANCER

Gene profiling hints at ipilimumab mechanism of action

To determine tumor-related factors that influence the response of metastatic melanoma tumors to treatment with the anti-CTLA-4 antibody ipilimumab, researchers have performed gene-profiling assays on biopsies collected from 45 patients before and after treatment with ipilimumab. In patients who responded to treatment, expression of immune-related genes increased, and expression of genes associated with cell proliferation and melanoma-specific antigens decreased. These data indicate that cell-mediated immune responses have a role in the activity of ipilimumab.

Original article Ji, R. R. *et al*. An immune-active tumor microenvironment favors clinical response to ipilimumab. *Cancer Immunol. Immunother*. doi:10.1007/s00262-011-1172-6

GYNECOLOGICAL CANCER

Novel combination shows promise in ovarian cancer model

An interesting therapy combination has been uncovered in preclinical studies. In an ovarian cancer cell line, the proteasome inhibitor bortezomib acted synergistically with indole-3-carbinol, a natural compound found in cruciferous vegetables. Treatment with the combination induced cell-cycle arrest and apoptosis and sensitized the cells to chemotherapy. Importantly, in mouse models, treatment with the combination inhibited tumor growth and reduced tumor weight compared with treatment with either single agent.

Original article Taylor-Harding, B. *et al*. Indole-3-carbinol synergistically sensitises ovarian cancer cells to bortezomib treatment. *Br. J. Cancer* doi:10.1038/bjc.2011.546

HEMATOLOGICAL CANCER

Germline genes likely have a role in young patients with AML

A large population study has been completed in Sweden that aimed to identify whether there is a familial link for acute myeloid leukemia (AKL) and myelodysplastic syndromes (MDS). Interestingly, having a first-degree relative with AML or MDS did not increase the risk of developing either disease. However, the risk of developing a myeloproliferative neoplasm was increased (although not significantly). For families of patients diagnosed with AML at younger than 21 years, there was a significantly increased risk of developing AML or MDS, suggesting a role for germline genes in these cases.

Original article Goldin, L. R. *et al*. Familial aggregation of acute myeloid leukemia and myelodysplastic syndromes. *J. Clin. Oncol*. doi:10.1200/JCO.2011.37.1203

HEAD AND NECK CANCER

Bevacizumab an option for nasopharyngeal carcinoma?

A recent phase II trial has shown that bevacizumab is tolerated by patients with nasopharyngeal carcinoma. The trial assessed patients with grade IIB–IVB disease and combined treatment with bevacizumab and cisplatin with intensity-modulated radiation therapy. There were no grade 5 adverse events, which was one of the end points, and no grade 3 or 4 hemorrhages occurred. Although this was a single-arm trial, the investigators reported that the treatment "might delay the progression of subclinical distant disease."

Original article Lee, N. Y. *et al*. Addition of bevacizumab to standard chemoradiation for locoregionally advanced nasopharyngeal carcinoma (RTOG 0615): a phase 2 multi-institutional trial. *Lancet Oncol*. doi:10.1016/S1470-2045(11)70303-5