A NEW THERAPY FOR THYROID CANCER?

Sorafenib and sunitinib appear to improve progression-free survival rates in patients with advanced, progressive, differentiated thyroid cancer, according to Cabanillas and colleagues. These drugs also have a fairly well-tolerated toxicity profile.

The treatment options for patients with progressive, ^{131}I-resistant differentiated thyroid cancer are limited. However, discoveries in tumor biology have led to several clinical trials using targeted agents to treat metastatic thyroid cancer. Preliminary results suggest that the tyrosine kinase inhibitors sorafenib and sunitinib might be treatment options for differentiated thyroid cancer.

The researchers retrospectively analyzed data from 15 patients with differentiated thyroid cancer treated with tyrosine kinase inhibitors between 2006 and 2008. 13 patients received either 400 mg or 200 mg sorafenib orally twice-daily. One patient received 50 mg sunitinib orally once per day for 4 weeks followed by 2 weeks off the drug. Another patient received 50 mg sunitinib orally once per day for 2 weeks and then 1 week off the drug. CT scans and ultrasonography were used to assess treatment efficacy.

Overall, 66% of the patients had a durable response to therapy, and clinical benefit was seen in 80%. Metastases in different tissues exhibited a differential response to the same drug, even in the same patient. Lung metastases responded well to tyrosine kinase inhibitor therapy, as did lymph node metastases. By contrast, bony and pleural metastases both progressed during therapy. This finding might reflect tissue-specific differences in vascular endothelial growth factor receptor expression and inhibition.

Sorafenib therapy was, however, associated with an increased risk for squamous cell carcinoma, a finding that could limit the use of tyrosine kinase inhibitors.

Claire Greenhill

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