

CT and serum LDH shows promise as survival predictor for some metastatic melanoma patients

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Combining CT imaging findings with baseline serum lactate dehydrogenase levels is showing promise as a way to predict survival in patients with metastatic melanoma being treated with anti-angiogenic therapy.

With the hope of predicting patient survival, researchers at the University of Mississippi Medical Center in Jackson and at the Ohio State University Comprehensive Cancer Center in Columbus analyzed CT images and clinical data from 46 [patients](#) with metastatic [melanoma](#) that were treated with anti-angiogenic therapy. "The analysis found that initial post-therapy [CT imaging](#) changes in tumor morphology, attenuation, size and structure (MASS Criteria) are predictive of survival. These results are similar to what we have found in patients with metastatic [kidney cancer](#), another highly vascular tumor treated with anti-angiogenic therapy. The current study is the first of its kind to associate CT findings of tumor devascularization with survival in patients with [metastatic melanoma](#) treated with anti-angiogenic therapy," said Dr. Andrew Smith of the University of Mississippi.

"Patients with high baseline serum lactate dehydrogenase (LDH) tend to have poor overall survival compared to patients with low serum LDH," said Dr. Smith. LDH levels are used to stage metastatic melanoma, but are only weakly associated with survival when used alone," he said.

"What was surprising to us was that the accuracy for predicting both

progression-free and overall survival is substantially increased when MASS Criteria findings are combined with data from serum LDH levels," said Dr. Smith.

"This was an exploratory study," said Dr. Smith. "The next step is to take what we've discovered and test it in prospective clinical trials. At a minimum, patients with low baseline serum LDH and evidence of tumor devascularization on their initial post-therapy CT should be encouraged that they are likely to have a favorable response to therapy," he said.

"The hope is to identify patients that will best respond to anti-angiogenic therapy so we can improve their survival and quality of life. Patients identified as nonresponders could be offered alternative treatments to avoid unnecessary drug toxicities and cost from a therapy that will not improve their survival or quality of life," he said.

Dr. Smith's study will be presented April 17 during the ARRS Annual Meeting in Washington, DC.

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