Blood markers may reveal active spinal degenerative disease

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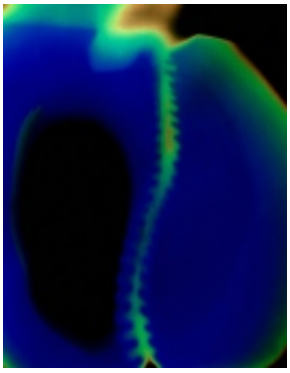

(HealthDay)—Serum biomarkers may be a measure for assessment of active degenerative spinal disease in older adults, according to a study published in the November issue of the *Journal of the American Geriatrics Society*.

In a cohort of patients, Gwendolyn A. Sowa, M.D., Ph.D., from the Veterans Affairs Pittsburgh Healthcare System, and colleagues measured pain-related impairment (on a pain thermometer and the McGill Pain Questionnaire Short Form) and pain-related function or activity limitation (Roland Morris Disability Questionnaire, Short Physical Performance Battery, and repetitive trunk rotation). Magnetic resonance imaging (MRI) scans were performed and plasma samples were collected before and after physical performance tests. Plasma samples

were analyzed for inflammatory markers (E-selectin and regulated on activation, normal T cell expressed and secreted [RANTES]), inhibitors of catabolic enzymes (tissue inhibitor of metalloproteinases-1), markers of matrix turnover (C- telopeptide of type II collagen and aggrecan chondroitin sulfate 846), and stress biomarkers (neuropeptide Y [NPY]). The cohort included 43 older individuals (≥60 years) with chronic low back pain.

The researchers found that composite MRI measurements did not show significant correlation with pain or pain-related function. There were associations noted with pain and pain-related function with basal levels and changes in serum biomarkers in response to activity, particularly NPY and RANTES, in addition to the explanatory power of MRI-based results.

"Changing levels of biomarkers in response to activity suggests that they may be useful as metrics to measure treatment responses in future studies," the authors write.

More information: Abstract
Full Text (subscription or payment may be required)