Brain neuroinflammation seen in chronic fatigue syndrome

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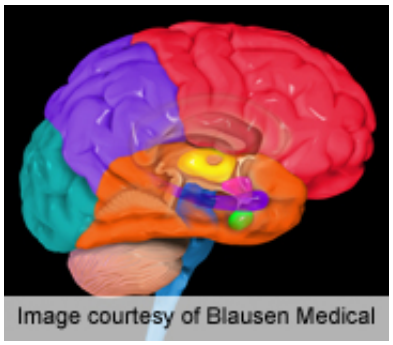

(HealthDay)—Neuroinflammation markers are elevated in the brains of chronic fatigue syndrome/myalgic encephalomyelitis (CFS/ME) patients compared to healthy controls, according to a study published online March 24 in the *Journal of Nuclear Medicine*.

Yasuhito Nakatomi, M.D., from the Osaka City University Graduate School of Medicine in Japan, and colleagues conducted ^{11}C-(R)-(2-chlorophenyl)-N-methyl-N-(1-methylpropyl)-3-isoquinoline-carboxamide (^{11}C-(R)-PK11195) PET scans in nine CFS/ME patients and 10 healthy controls. Participants also filled out questionnaires about fatigue, fatigue sensation, cognitive impairments, pain, and depression.

The researchers found that, in CFS/ME patients, binding potential (BP_{ND}) values in the cingulate cortex, hippocampus, amygdala, thalamus, midbrain, and pons were 45 to 199 percent higher, compared to healthy controls. The BP_{ND} values of ^{11}C-(R)-PK11195 in the amygdala, thalamus, and midbrain of CFS/ME patients positively correlated with cognitive impairment. BP_{ND} values in the cingulate cortex and thalamus of CFS/ME patients positively correlated with pain score, while the BP_{ND} value in the hippocampus positively correlated with depression score.

"Neuroinflammation is present in widespread brain areas in CFS/ME patients, and was associated with the severity of neuropsychological symptoms," the authors write.

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