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High- and moderately high-methionine uptake demonstrated by PET in a patient with a subacute cerebral infarction

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In patients with cerebral tumors, high accumulations of L-methyl-^{11}C-methionine (^{11}C-Met) have been reported in some cases of cerebral ischemic disease, but no high accumulations of ^{11}C-Met in areas where only transient arterial occlusions are most likely to occur have been reported. Herein we present a case of a high accumulation of ^{11}C-Met in an area of frontal interhemispheric cerebral infarction and a moderately high accumulation with an unclear margin in a distant frontal convexity area. A craniotomy revealed a subacute stage of cerebral infarction in the interhemispheric lesion, and an ischemic change in the distant convexity area. Sixteen months after onset, CT scans demonstrated an infarction area in the interhemispheric lesion only, and no atrophic changes were observed in the distant convexity area indicating that no serious tissue damage had occurred.

Key words: positron emission tomography, L-methyl-^{11}C-methionine, transient artery occlusion, cerebral infarction