

## Accumulation of L-[2-(F-18)]fluorophenylalanine in peri-infarct area in a patient with acute cerebral infarction

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We studied the brain uptake of amino acid in a patient with acute cerebral infarction with L-[2-(F-18)]fluorophenylalanine and positron emission tomography. The increased accumulation of the ligand was specifically found in the peri-infarct area where oxygen metabolism was still maintained but decreased later in the 72-day follow-up period. The kinetic analysis revealed that increased accumulation was not due to increased transport from the blood to the brain but to delayed washout from the brain to the blood. Although the mechanism is still unknown, abnormally high accumulation of L-[F-18]fluorophenylalanine may predict delayed neuronal changes after ischemic insults of the brain.

**Key words:** PET, cerebral infarction, amino acid transport, phenylalanine