etal zones. The authors conclude that in spite of improved SPECT image quality, accuracy is not affected by early imaging after 1 hr.

We congratulate the authors for their excellent study. Nevertheless, we do not agree with the statement "The brain distribution of ^{99m}Tc-ECD versus time in normal and ischemic tissue at the subacute phase of stroke has not yet been studied." Participating in the Phase III multicenter trial on ECD, our group performed—similarly to Moretti et al. (*1*)—early and delayed ECD SPECT imaging in stroke. Our data were presented in Sendai in 1993 (*2*). The investigation included 11 patients with subacute stroke (5–15 days), four patients in the late subacute phase (16–30 days) and two patients in the chronic phase (>30 days). We performed SPECT studies on 11 patients 60 min and 20 hr after tracer injection and observed hypoperfusion of the affected hemisphere in 16 of 17 patients on the early SPECT scan. Semiquantitative analysis of the 11 patients with early and delayed SPECT studies was performed. The ratio (infarcted to contralateral region) showed a significant ($p < 0.01$, paired t-statistics) decrease from the early (0.80 ± 0.09) to the delayed (0.71 ± 0.14) SPECT image. Therefore, the results of both studies (*1,2*) agree in demonstrating increased washout from infarcted tissue, although the time lag between early and delayed imaging was markedly different.

ECD brain uptake has been proven to be blood flow-dependent in epilepsy, dementia and cerebrovascular diseases. In contrast to other blood flow tracers such as IMP or ^{99m}Tc-hexamethyl propyleneamine oxime in late postischemic reperfusion/luxury perfusion such as ECD shows no increased uptake, but a decreased uptake (*3*). In normal brain tissue, the trapping mechanism for ECD is its hydrolization into polar metabolites after crossing the blood-brain barrier. In stroke, particularly in the subacute phase, different binding mechanisms must be assumed, which could explain the retention differences in luxury perfusion (*3*) and the increased washout from infarcted brain tissue (*1,2*).

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REPLY: We were delighted to read the comments of Grunwald et al. concerning our results for comparison of early and delayed ECD and IMP brain imaging in subacute strokes (*1*). We agree that we forgot to quote their excellent study (*2*) and to discuss their results in our article. Our attention was mainly focused on comparison of ECD diagnostic accuracy with IMP within 5 hr after tracer injection. Their study, which addressed ECD with a delay in exploration (20 hr), was beyond the scope of our paper. We acknowledge that very delayed images also demonstrated significantly increased washout from infarcted tissue.

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