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REPLY: We thank Dr. Alexiou and his colleagues for their thoughtful comments regarding our article evaluating the diagnostic accuracy of PET with L-methyl-^{11}C-methionine (^{11}C-MET) in differentiating recurrent brain tumors from radiation necrosis after radiotherapy (*1*).

Although several studies show the utility of SPECT in distinguishing recurrent brain tumors from radiation necrosis, PET is known to be superior to SPECT in spatial resolution and ability to be quantified. Furthermore, our previous study evaluating brain tumors using ^{11}C-MET and ^{201}Tl-chloride suggested that ^{11}C-MET PET is more useful than ^{201}Tl SPECT for that purpose (*2*). On the basis of these findings, we have recently preferred ^{11}C-MET PET to ^{201}Tl SPECT, and our paper demonstrated that quantitative values determined from ^{11}C-MET PET data can differentiate recurrent brain tumors from radiation necrosis with acceptable diagnostic accuracy (*1*).

However, the use of ^{11}C-MET is often limited to facilities equipped with a cyclotron because the half-life of ^{11}C-MET is relatively short, thus making it costly. In contrast, SPECT is a less costly imaging technique and widely available. Nevertheless, a definitive SPECT radiotracer for the differentiation of recurrent brain tumors from radiation necrosis has not yet been established. We have examined patients with brain tumors using both ^{99m}Tc-tetrofosmin and ^{99m}Tc-sestamibi SPECT in clinical settings but have not yet obtained sufficient data to draw any conclusions. In the field of SPECT, ^{99m}Tc-tetrofosmin may be a promising radiotracer for the differentiation of recurrent brain tumors from radiation necrosis (*3*) and is the area in which we are most interested. We agree with the statement by Dr. Alexiou and his colleagues that comparative studies between these 2 imaging techniques with ^{11}C-MET PET and ^{99m}Tc-tetrofosmin SPECT are most interesting and helpful.

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