(with reduced initial flow and activity at 1–2 hr exceeding liver blood pool) (*2*). As listed in Table 1 of this same article, there was similar blood-pool activity in the 30-min and 90-min planar images in 5 of 15 presumed hemangiomas (33%). No data were presented about the specificity of this finding in the diagnosis of hemangioma.

Although it is important to refine diagnostic criteria, each proposed change requires careful assessment. We feel that there is insufficient validation of this particular RBC scintigraphic finding.

We do not believe that planar imaging is adequate in the assessment of small focal liver lesions as indicated in the case presented by Dr. Prakash (*2*). We suggest that the improved contrast resolution of SPECT would allow more accurate delineation of this lesion's blood-pool characteristics, while the multiplanar nature of this technique would demonstrate its anatomic relationship to vascular structures such as the portal vein. Also, we are dismayed to see a moderate amount of gastrointestinal activity in the delayed images, indicating a poor RBC label. For these reasons, we believe that interpretation of Dr. Prakash's case is problematic.

We respectfully disagree with Dr. Prakash's interpretation of the scintigraphic findings in our patient (*3*). In our opinion, the degree of blood-pool activity on the 2-hr planar and tomographic images is appropriate for a 2-cm hemangioma; we would not expect to see the labeled RBC activity of a 2-cm lesion equal or exceed splenic or cardiac activity.

In conclusion, while we support discussion about improved diagnostic criteria, we believe that there is insufficient evidence to adopt the scintigraphic criteria proposed by Dr. Prakash.

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Dosimetry of Iodine-123-β-CIT

TO THE EDITOR: Seibyl et al.'s (*1*) article states that the lung is the limiting organ for radiation exposure from ^{123}I-β-CIT and the maximum dose injected can be as high as 500 MBq (14 mCi). My group, however, has pointed out that due to the high and long-lasting uptake of ^{123}I-β-CIT in the basal ganglia, the mean absorbed dose is relatively high: 0.270 mGy/MBq (1 rad/mCi). This sets limits on the doses administered. We concluded that the maximum acceptable single dose should be equal to 185 MBq (5 mCi) for adults (*2*). For children, more severe restrictions are applicable.

Seibyl et al. also stated that the mean peak brain uptake is 14% of the injected dose (*1*). We have found a value of 5.5%, one-third of the value by Seibyl et al. Correspondingly, our estimate for striatal uptake was one-third of their figure of 2%. The effective dose equivalent was the same, however, in both articles (0.031 mSv/MBq, 0.13 rad/mCi).

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REPLY: The writer raises an interesting point about the basal ganglia exposures associated with ^{123}I-β-CIT and other radiopharmaceuticals that have highly concentrated distribution in the brain. In our paper, we also calculated basal ganglia doses which were identical to the estimates of Dr. Kuikka, but in keeping with MIRD convention, did not consider this structure to represent a separate organ. Regarding the apparent discrepancy in brain uptakes, it is not surprising to see such different values. One goal of our work was to accurately characterize source organ peak uptake by taking multiple serial whole-body images. The dynamic nature of uptake and washout precludes less sampling frequency. High peak brain uptake occurred at about 60 min postinjection in our sample of eight healthy subjects, a time not sampled in Dr. Kuikka's work. Our uptake data were also decay-corrected to express biological peak organ uptake. I would add that while a mean 14% peak uptake is high, this is in keeping with other successful SPECT receptor ligands such as [^{123}I]iomazenil (*1*).

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Clarification of a Fractional Uptake Concept

TO THE EDITOR: Ishizu et al. (*1*) have introduced a simple PET quantifier, fractional uptake (FU):

$$FU = C(T) \Big/ \int_0^T Cp(t)\, dt, \qquad \text{Eq. 1}$$

where C(T) and Cp(t) are tissue and plasma activities at the end of a scan duration T and at any time t, respectively. They state incorrectly, however, that FU is dimensionless and convert it to a percentage in its plots. It is suggested here that Equation 1 be designated instead as fractional uptake rate (FUR) because of its dimensions of reciprocal time.

The use of FUR somewhat normalizes population plasma variabilities. It can be a simple alternative to model parameter identification, but the latter can give more information as well as account for plasma dynamics. FUR also is an adjunct to the popular standardized uptake value (SUV):