Scan speed range	Time constant
2–7	1.0
8–24	0.25
25–75	0.08
76–200	0.03
201–600	0.01

These data tend to confirm the contention of Simmons and Kereiakes. To be statistically valid, both the count density and the ratemeter must be operating under statistically valid conditions.

Two further complicating factors are the effect of the voltmeter (to the light source) response which is a function of both the ratemeter and the contrast enhancement, and the fact that the count density is normally calculated over the hot spot of the organ to be scanned. This, of course, can vary considerably, particularly as one approaches the periphery. Further investigation of these two factors, particularly the former, would prove quite interesting.

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HOT HEPATIC LESIONS ON LIVER SCANS

In their Case Report of a radiocolloid-concentrating lesion on liver scan, Coel, et al (*1*) request reports of similar cases since their patient never had a tissue diagnosis.

I would like to refer the authors to a report by Volpe and Johnston (*2*) of a similar case of a hot radiocolloid-concentrating lesion in a patient who had histologically proven breast carcinoma. On the basis of the scan, a diagnosis of hepatic hemangioma was entertained. This diagnosis was confirmed at laparotomy when the lesion was resected. There was no metastatic cancer in the liver.

Thus it would appear that one should hesitate before assuming a hot lesion on liver scan to be a metastatic focus—even in a patient with a known primary tumor. Even more important, on the basis of this one histologically documented case of such a lesion, one should probably consider percutaneous needle biopsy contraindicated as a means of establishing the diagnosis.

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AUTHORS' REPLY

The authors wish to thank Dr. Lull for bringing to our attention the work of Dr. Volpe and Dr. Johnston. It would appear from this work that there is a good chance that the lesion in our patient's liver was indeed a hemangioma. Since hemangiomas involving the liver are not rare phenomena, one wonders why more of them are not visualized as hot. The authors agree with Dr. Lull that an area of increased uptake on a liver scan should not be interpreted as a metastatic focus.

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