

because of pathophysiologic reasons, most or part of the ^{99m}Tc -sulfur colloid administered might aggregate into macromolecules that would then be trapped in the lungs (3).

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THE AUTHOR'S REPLY

None of the studies of increased lung uptake of ^{99m}Tc -sulfur colloid published so far conclusively excludes or establishes increased phagocytosis or macroaggregation as the responsible mechanism. As previously discussed (1), data from three studies using ^{99m}Tc -sulfur colloid favor increased phagocytosis (2-4). On the other hand, animal studies using colloidal carbon in comparatively large amounts have shown that burns and factors that promote coagulation increase the uptake of colloidal carbon in the lungs whereas heparin prevents this increased uptake (5,6).

The report by Turner, et al does not negate the phagocytic hypothesis since the autopsy was done 1 month after the demonstration of increased lung uptake of ^{99m}Tc -sulfur colloid and there is evidence for rapid interchange (within minutes) between the marginated macrophage pool and the circulating macrophage pool (7). Therefore, macrophages present in the pulmonary capillary bed at the time of the liver-spleen study may not have been present at the time of autopsy. In addition, macrophages can be difficult to identify histologically (8). Thus, further research will be necessary to determine the

mechanism(s) responsible for increased lung uptake of ^{99m}Tc -sulfur colloid.

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SCINTIGRAPHIC APPEARANCE OF NECROTIC LIVER METASTASIS

IDENTICAL WITH THAT OF AMEBIC ABSCESES

Concerning the diagnostic possibilities of gallium scanning of the liver, George F. Geslien, et al recently described the scintigraphic image of acute amebic abscesses. The same tracer distribution, however, can be found in other liver lesions as we ascertained in one of our patients. The striking similarity of the scintigraphic image with that of amebic abscesses encouraged us to report this case.

A 43-year-old woman presented with pain in the right hypochondrium with moderate fever of a few weeks' duration. Physical examination demonstrated hepatomegaly with palpable nodules. The liver function test showed elevated alkaline phosphatase and bilirubin values. The results of the immunoelectrophoresis were compatible with an infectious or parasitic process. Laparoscopic exploration showed hepa-

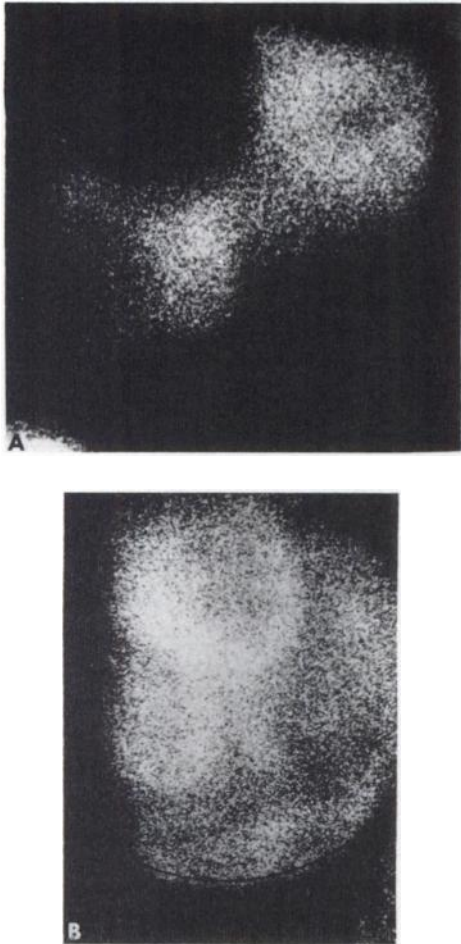


FIG. 1. (A) Colloid liver scan with multiple round hypoactive zones. (B) Gallium-67 liver scan with active zones in right lobe, surrounded by ring of hyperactivity.

tomegaly with greatly enlarged right lobe without other peculiarities. The histologic examination of the tissue sample taken at laparoscopy disclosed only centrolobular congestion.

The colloid liver scan (Fig. 1A) demonstrated huge, round hypoactive zones in the right lobe with a smaller defect visible in the left lobe. The early

images after injection of the tracer dose showed that the lesions were poorly vascularized. In order to gain additional information about the nature of the intrahepatic tumors, a ^{67}Ga -citrate scan was performed (Fig. 1B). Two large zones with abnormal tracer distribution can be seen within the right lobe with a ring of hyperactivity surrounding a zone of normal accumulation. The presence of cystic or infectious disease of the liver was suggested.

Radiographic exploration of the patient's abdomen showed displacement of the stomach, kidney, and gallbladder. Elevated right diaphragm was also found.

At hepatic arteriography and venography multiple expansive processes were visualized. The images of venography were suggestive of malignancy. Finally, coloscopy revealed a malignant lesion of the sigmoid. Differentiated adenocarcinoma was found at histologic examination of the colonic tumor. The hepatic lesion showed tumoral proliferation (adenocarcinoma) with evident signs of necrosis.

Although the initial clinical impression together with a suspicious gallium liver scintigraphic image suggested an infectious or parasitic liver disease in this patient, further exploration should have uncovered the metastatic nature of the intrahepatic expansive processes. The central necrosis within the huge metastatic tumors is probably at the origin of the remarkable distribution of ^{67}Ga -citrate within hepatic lesions mentioned earlier.

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ERRATUM

Regarding "A Rapid and Accurate Method for Sizing Radiocolloids," by Michael A. Davis, Alun G. Jones, and Helena Trindade (*J Nucl Med* 15: 923-928, 1974), the authors regret that an incorrect statement appeared. On page 926, column 2, under "Comparison of chemical ingredients and preparation methods," it is stated, "Colloid kit 3 is both chemically and preparatively different from the previous

two kits in that H_3PO_4 has replaced the HCl and a double heating step is required." In this sentence, colloid kit 3, the Squibb product discussed in this article, should have been colloid kit 1, the Mallinckrodt/Nuclear product. The $^{99\text{m}}\text{Tc}$ sulfur colloid kit produced by E. R. Squibb & Sons contains HCl and requires only one heating step.