bladder. These authors neglect to mention how their product differs from previously described ^{99m}Tc-labeled compounds that concentrate in the liver and gallbladder. We reported in 1972 that ^{99m}Tc-labeled penicillamine is concentrated by the liver and gallbladder, both in experimental animals and in man (*2,3*). Technetium-99m-penicillamine has been used in man to evaluate gallbladder function and has been shown to compare favorably with contrast cholecystography (*4*). Dugal, et al (*5*) have labeled a bile acid analog (dihydrothioctic acid) with ^{99m}Tc and have shown that this agent can be used in dogs for quantitative analysis of gallbladder contraction using an image display-analysis system. This group has also shown that their agent preceded by cholecystokinin injection can be used effectively for the diagnosis of acute cholecystitis in man (*6*).

Lin and his colleagues have neglected to mention how their new compound differs from these previously reported ^{99m}Tc-labeled agents and, on the basis of animal studies, claim that their compound is a replacement for ^{131}I-rose bengal. Since their data show only that ^{99m}Tc-mercaptoisobutyric acid-stannous chloride complex is concentrated in rat and dog gallbladders, we feel that they should not imply that their agent is a replacement for ^{131}I-rose bengal studies in man. It is surprising that the reviewers who suggested a revision of the original manuscript did not note that in their article, Lin and his associates failed to refer to other previously reported ^{99m}Tc-labeled agents available for hepatobiliary studies. We question the implications of the title of their article and suggest that at this stage of development of ^{99m}Tc compounds for biliary tract studies that ^{131}I-rose bengal still has a role to play in human studies.

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THE AUTHOR'S REPLY

Krishnamurthy, Tubis, and Blahd are quite correct in pointing out that significant publications exist that are related to ^{99m}Tc-labeled agents for gallbladder scintigraphy. Since our paper on this subject was merely intended to be a concise report of our initial evaluation of a single new agent, we made no effort at either review of prior art or evaluation of relative merits of similar agents. We regret that our manner of presentation was found offensive.

It should be noted, however, that our choice of Sn(II) mercaptoisobutyrate for ^{99m}Tc-labeling in cholescintigraphy is neither arbitrary nor capricious. We have been developing and evaluating agents for this purpose for many years, and, indeed, we have extensive data in animals comparing a variety of agents. The agents we studied included those mentioned by Blahd, Tubis, and Krishnamurthy, and our animal data convinced us that our ^{99m}Tc-labeled Sn(II) mercaptoisobutyrate showed the most rapid and complete concentration in the liver with the least amount of concentration and excretion by the kidneys of all of the agents we evaluated. We thought that little would be gained by publishing such comparisons, however, since, in the final analysis, the relative clinical utility of the various agents becomes the only criterion of relative merits.

With regard to the disclaimer that the agent is a substitute for ^{131}I-rose bengal, our argument is simply that ^{99m}Tc has physical properties superior to those of ^{131}I with regard to use with existing imaging devices and that plasma clearance and hepatic concentration of ^{99m}Tc-Sn(II) mercaptoisobutyrate is more rapid and complete than that found with ^{131}I-rose bengal in experimental animals. Our conclusion that ^{99m}Tc-Sn(II) mercaptoisobutyrate is a substitute for ^{131}I-rose bengal in hepatobiliary studies is thus a result of the apparent superior physical and biologic properties of the former agent in comparison with the latter, at least in animal studies.

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