LETTERS TO THE EDITOR

Re: Diagnosis of Alcoholic Cirrhosis with the Right-To-Left Hepatic Lobe Ratio: Concise Communication

I read with much satisfaction the interesting article by D. P. Shreiner and M. Barlai-Kovach, which describes a straightforward quantitative imaging technique that is highly sensitive and specific for alcoholic cirrhosis (*1*). The authors hypothesize that the low right-to-left lobe ratio is due to "streamlining" of blood having a high alcohol concentration from the superior mesenteric vein to the right hepatic lobe, and state that although evidence for this effect has been obtained in some animal models, it has not yet been demonstrated to occur in man. The authors may be interested to know that some results in man have indeed been obtained, and they support their hypothesis. Gates and Dore (*2*) showed that portal-vein blood was predominantly directed to the right hepatic lobe in 12 patients without liver disease who were undergoing laparotomy. They injected Au-198 colloid into a mesenteric vein and followed this by administration of Tc-99m microaggregated albumin into an antecubital vein. This evidence for "streamlining" in the human portal system is strictly applicable only to relatively large colloidal-sized particles; demonstration of this phenomenon for dissolved organic compounds would be of additional value.

R. E. REIMAN
Memorial Sloan-Kettering Cancer Center
New York, New York

REFERENCES

1. SHREINER DP, BARLAI-KOVACH M: Diagnosis of alcoholic cirrhosis with the right-to-left hepatic lobe ratio: Concise communication. *J Nucl Med* 22:116-120, 1981
2. GATES GF, DORE EK: Streamline flow in the human portal vein. *J Nucl Med* 14:79-83, 1973

Reply

We are greatly indebted to Robert E. Reiman for bringing to our attention the paper by Drs. Gates and Dore that tends to confirm our hypothesis of streamlined blood flow in the portal vein of humans. In view of the difficulties encountered in human experimentation, obtaining informed consent, and fulfilling human rights committee procedures, it is most gratifying to know that human experiments in patients without liver disease have been accomplished and have verified our hypothesis.

D. P. SHREINER
VA Medical Center
Pittsburgh, Pennsylvania

Re: Are Oral Cathartics of Value in Optimizing the Gallium Scan? Concise Communication

In this *Journal* Silberstein et al. (*1*) have reported a study in which preparation of the colon with milk of magnesia (MOM) and cascara before gallium scanning was compared with no preparation. They concluded that "MOM and cascara does not visibly speed the removal of gallium from the intestine, improve scan quality, or reduce the number of days required to obtain a diagnostic scan." They have, therefore, "discontinued intestinal preparation of patients for gallium scanning."

We have recently conducted an experiment (*2*) in which 309 patients undergoing gallium scintigraphy were randomly assigned to one of four cleansing regimens; 78 patients to a high-fiber diet, 76 patients to castor oil, 76 patients to MOM and cascara, and 79 to no preparation. After excluding gallium scintigrams of patients who failed to comply with the regimens to which they were assigned, the images were presented in random order to three independent, experienced observers who rated them for colonic activity using a four-category grading scale. We found, as did Silberstein et al., that there was no significant difference between patients taking MOM and cascara and those having no bowel preparation at all ($p = 0.42$). However, preparation with castor oil was found to be significantly better ($p = 0.047$) than no preparation. A high-fiber diet also resulted in substantial reduction in colonic radioactivity compared with no preparation, and although statistical significance was not achieved ($p = 0.083$), we suspect that the failure to achieve significance at the 0.05 level may have been due, at least in part, to the small number of patients remaining in the high-fiber group after noncompliant patients were excluded (only 13 of 78 patients originally assigned). As a group, patients complying with the three cathartic regimens had significantly less colonic activity at the time of scanning than did those who had no preparation at all ($p = 0.0018$). Thus, in contrast to Silberstein et al., we believe that preparation of the bowel is helpful in the performance of gallium scintigraphy, provided that an effective regimen is applied.

To prepare our patients for gallium scanning, we are currently using a combination of a high-fiber diet (a minimum of 11.2 g of fiber and 6-8 cups of fluid each day for three consecutive days before imaging) and castor oil (30 ml of castor oil each night for two consecutive nights before imaging). We prescribe a high-fiber diet alone for patients who cannot tolerate castor oil.

An incidental (but nonetheless important) finding of our study was that poor compliance of patients is one of the major impediments to the success of any cleansing regimen. In spite of the fact that one of the authors gave careful, individual instruction to each patient (many of whom were outpatients), compliance was poor regardless of the regimen to which patients were assigned. It is intriguing that 54% of patients who were to have no preparation of bowel at all were found to have taken some form of laxative before scanning despite instructions to the contrary!

DAVID A. TURNER
AMJAD ALI
ERNEST W. FORDHAM
Rush-Presbyterian-St. Luke's Medical Center
Chicago, Illinois
GARY J. NOVETSKY
Skokie Valley Community Hospital
Skokie, Illinois