first ^{75}Se image is registered (120,000–150,000 counts in 20–35 min); then, a second image in the ^{99m}Tc peak (1 min) and a second ^{75}Se image are taken. Liver subtraction using ^{198}Au-colloid (150 μCi) is performed. The subtraction of the ^{99m}Tc in the ^{75}Se peak is carried out according to coefficients calculated by a middle-capacity computer and corresponding to the activity of the extrapancreatic regions (stomach and bowel) obtained from the ^{99m}Tc and ^{75}Se images.

The details of this technique and the first clinical results were presented at the Symposium on Medical Radioisotope Scintigraphy organized by the International Atomic Energy Agency (October, 1972, Monte Carlo), and published in Medical Radioisotope Scintigraphy, vol. II, pages 181–189.

Our experience with 350 pancreas scintigrams shows that this double-subtraction technique should be used in 15–20% of all scintigraphic studies of the pancreas in order to obtain clinically useful and correct results.

J. FRÜHLING
J. HENRY
Laboratoire des Radio-Isotopes
Institut J. Bordet
Université Libre de Bruxelles,
Faculté de Médecine
Bruxelles, Belgique

THE AUTHOR'S REPLY

I appreciate the remarks of Dr. J. Frühling and Professor J. Henry and regret that the details of their technique with clinical results are not yet available in the San Francisco libraries.

The purpose of my Letter to the Editor was to point out that the separation of duodenal loop from head of pancreas could betray the presence of a lesion which might otherwise be missed at the lateral border of the head of the pancreas.

Our technique differs in many respects from that described by Frühling and Henry. We use a much smaller dose of ^{99m}Tc-sodium pertechnetate in order to minimize the background at the ^{75}Se-selenomethionine photopeak and a smaller dose of the latter in order to decrease the internal radiation exposure of the patient. Since we do not have access to a computer for subtraction processes, we angle the collimator so as to achieve the best possible separation between pancreas and liver and pancreas and bowel. In our experience, correlation is poor between the scintiphotos of ^{99m}Tc-sodium pertechnetate distribution in the bowel and distribution of ^{75}Se-selenomethionine in the bowel. This may be due to the difference in the mode of administration, since the first is given orally and the second intravenously.

It would appear that the procedure described by Frühling and Henry is complementary to that described in my previous letter.

MELVIN B. BLACK
St. Luke's Hospital
San Francisco, California

DOES PERCHLORATE ENHANCE BRAIN LESION VISIBILITY?

The need for understanding the effect of perchlorate on lesion visibility is very important with the increasing use of this agent in the brain imaging protocol. In a recent preliminary note by Buttfield, et al (*1*) the statement was made that, "It appears that perchlorate may enhance the efficacy of pertechnetate as a brain scanning agent." Two possible factors responsible were cited: that intravenous perchlorate promotes an intracellular shift of pertechnetate in rabbits (*2*) and an increase in tumor technetium concentration in mouse brain sarcomas (*3*).

The following is an additional reason why perchlorate appears to enhance lesion visibility. Not only does perchlorate reduce choroid plexus and the thyroid uptake of pertechnetate, it also reduces the uptake in the sinuses, tongue, and salivary glands normally viewed as adjacent structures to the brain while imaging. This effect is seen in Fig. 2 of the preliminary note in which the lesion is better visualized after pretreatment with perchlorate. Regardless of which of the two most commonly used techniques are employed (same number of counts accumulated for each view or the time needed for a predetermined number of counts on the anterior view used for all following views), the reduction of adjacent activity by perchlorate changes the ratio of counts obtained from the brain compared to the adjacent structures. With this reduction, more information is being accumulated from the brain itself than if no perchlorate had been administered. It is an accepted fact that