without regard for the fact that since that time two articles (*5,6*), bringing new more reliable information on the topic, have appeared in the literature. Widman and Powsner (*5*) tabulated the absorbed fraction for right circular cylinders containing a gamma-emitting radionuclide and noted that, for low values of $\bar{g}$ (calculated from the corresponding absorbed fractions), their results are 15 percent higher than those of Focht, et al. Later the similar discrepancy was also confirmed by Hubbard and Williamson (*6*). Comparison of the geometric factors given by Lane and Greenfield, adopted according to Focht, et al for the geometries considered, and those of Widman and Powsner show the difference as much as 30%. The close agreement is obtained only in the case of cylinders approximating kidney, liver, and lungs. For pancreas, spleen, and thyroid Lane and Greenfield give the values of the geometrical factor 17, 18, and 11, respectively, while the corresponding values interpolated from the paper of Widman and Powsner are higher—20, 22, and 15.

For the total body Lane and Greenfield give the geometrical factor 126 which was taken from work of Loevinger, et al (*7*). In the energy range above 100 keV, the corresponding absorbed fraction is about 15% lower than that interpolated from tables of Snyder, et al (*8*) and Brownell, et al (*9*), as it is graphically illustrated by Fig. 2 in the Hušák paper (*10*).

Lane and Greenfield consider the calculation of the dose to an organ due to self-irradiation and give no information about how to determine it, e.g., the dose to the target organ from neighboring organs that contain activity. In this respect the "classical" method was little developed allowing only very rough dose estimates.

Even if authors' statements were based on quite correct data, their attempt to revive the "classical" method would appear to be at best superfluous and at worst confusing. The ever-growing popularity of the MIRD procedures all over the world demonstrates clearly their outstanding advantages.

V. HUŠÁK
University Hospital
Olomouc, Czechoslovakia

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THE AUTHORS' REPLY

We would like to thank Dr. Hušák for confirming the widespread use of the MIRD procedures for calculating absorbed dose from internally deposited radionuclides. As we state in our Letter to the Editor (*1*) these procedures are more general and more accurate than previous approaches.

Frequently, however, calculations which produce a high degree of accuracy also require a large amount of time. This may be of secondary importance when great accuracy is necessary, but often a simple, approximate method will suffice. In addition, calculations which require a great deal of time have a tendency not to be undertaken. We feel this is the situation which prevails in a number of routine clinical procedures in nuclear medicine.

We acknowledge the difficulties encountered both in calculating the average geometrical value, $\bar{g}$, and in determining the size and shape of the cylinder required to approximate the radiation absorption characteristics of a human organ.

However, suppose we accept all of the proposed changes to our published $\bar{g}$ values and we recalculate the absorbed dose rates listed in Table 2 of our Letter to the Editor using the $\bar{g}$ values suggested by Hušák. These calculated dose rates differ from those calculated by the MIRD procedure by from 1% to a maximum of 8%. This is rather remarkable agreement for a method of calculation which requires such a small investment in time.

We believe this accuracy is sufficient for most routine needs in view of the lack of adequate information on the biological variables in any organ dose calculation.

R. G. LANE
University of Wisconsin Health Center
Madison, Wisconsin

M. A. GREENFIELD
UCLA Health Sciences Center
Los Angeles, California

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EFFECTS OF BREAST PROSTHESIS ON ^{99m}Tc-STANNOUS-POLYPHOSPHATE BONE SCANS

We reviewed with considerable interest the letter by Milder, et al (*1*) in the March 1973 issue of the *Journal,* having noticed the same finding in our own department on several liver scans.

In addition, we have observed a similar phenomenon in the anterior view of many of our bone scans, especially since we began using ^{99m}Tc-stannous polyphosphate. It seems that the lower energy photons of ^{99m}Tc are much more readily absorbed by the breast prosthesis than are the more penetrating radiations of ^{85}Sr and ^{18}F.

Admittedly, abnormalities on a bone scan usually present as a "hot" rather than a "cold" area; however, we think it quite conceivable that an area of increased uptake might be missed because of absorption of low-energy photons by the prosthesis. Therefore, we think it advisable to remove such devices before scanning and would like to share our opinion with our colleagues elsewhere.

JOHN S. BUCHIGNANI
JOHN F. ROCKETT
Baptist Memorial Hospital
Memphis, Tennessee

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PITFALL IN THE PROTOCOL OF THE HUMAN PLACENTAL LACTOGEN TEST

Radioimmunoassay studies are becoming a common procedure in most community hospitals. Most protocols for these studies are well written. However, we have found a problem in the protocol of the Human Placental Lactogen Radioimmunoassay Study (Amersham/Searle, HPL Immunoassay Kit Working Protocol, Nov. 1972) since it failed to specify the type of molded plastic tube necessary for secondary containment.

We recently performed the HPL test with poor results. These poor results were manifested by poor formation of the precipitate, inability to centrifuge adequately the precipitate, erratic counting rates, and an inconsistent and poor standard curve. We were able to trace the poor results to the use of flat-bottom molded plastic tubes. Because the type of molded plastic tube was not specified in the Amersham/Searle protocol, we had used Abbott Laboratories T_3 flat-bottom plastic tubes for secondary containment. We since have corrected the problem by using round-bottom molded plastic polystyrene tubes (Kimble, sterile culture tubes with caps, sizes 10×75 mm or 12×75 mm). Although it is well known that glass containers for secondary containment in the gamma counters using ^{125}I should be avoided and molded plastic tubes should be used, Amersham/Searle failed to specify in its protocol what type of plastic tubes should be used. We recommend the protocol be amended to state that round-bottom molded plastic polystyrene tubes should be used for secondary containment when performing the Human Placental Lactogen Study.

WILLIAM E. REISINGER, JR.
ELLSWORTH J. BROWNING
Monongahela Valley Hospital, Inc.
Charleroi Division
North Charleroi, Pennsylvania

REDUCTION OF THE EFFECTS OF SCATTERED RADIATION ON A SODIUM IODIDE IMAGING SYSTEM

In a recent article Bloch and Sanders outlined a method for reducing the effects of scattered radiation on a sodium iodide imaging system (*1*). We agree that this procedure does indeed diminish the effects of scatter but have found it to have serious shortcomings.

Recently one of the authors (Lensink) proposed a similar system (*2*). It was abandoned when severe