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In This Month's Issue of

Evaluation of the Skeletal Kinetics of Fluorine-18-Fluoride Ion with PET

Dynamic image sets were acquired over a 60-min interval in a multiplane PET device, and input functions were measured directly from arterialized blood from 11 healthy male volunteers, and one breast cancer patient.

Gastric Uptake of Gallium-67 in AIDS

Gastric localization of 67Ga is described in 13 patients with acquired immunodeficiency syndrome from among 148 patients primarily referred to rule out Pneumocystis carinii pneumonia.

Pharmacokinetics of Rhenium-186 After Administration of Rhenium-186-**HEDP** in Patients with Bone Metastases

The pharmacokinetics of ¹⁸⁶ Re were studied in 11 patients with metastatic breast or prostate cancer.... Page 646

Somatostatin Receptor Scintigraphy with Indium-111-DTPA-D-Phe-1-Octreotide in Man: Metabolism. Dosimetry and Comparison with Iodine-123-Tyr-3-Octreotide

The metabolism of intravenously administered labeled-octreotide and estimates of its radiation dose to principal organs and effective dose equivalent was studied in six patients. In addition, scintigraphic images of various somatostatin receptor-positive tumors were compared using both 123I-Tyr-3-octreotide and 111In-DTPA-D-Phe-1-octreotide in the same patients.

Regional Metabolic Abnormality in Relation to Perfusion and Wall Motion in Patients with Myocardial Infarction: Assessment with Emission **Tomography Using Iodinated Branched Fatty Acid Analog**

The clinical utility of single-photon tomography using both BMIPP and 201Tl for the assessment of myocardial infarction was studied in 28 patients with infarctions and 4 normal subjects.

Blinded Evaluation of Planar Technetium-99m-Sestamibi **Myocardial Perfusion Studies**

Myocardial perfusion studies of 28 patients with documented coronary artery disease and 16 normal subjects, blinded as to age, sex and other clinically relevant information, were sent to a second institution for interpretation. The studies were quantitated independently by two operators, and interpreted independently by two other experienced

The Anatomy of Radioisotope **Lung Scanning**

The appearance of segmental and lobar ventilation defects of known anatomical location were examined on 81mKr ventilation scans in normal human

The Kinetics of Copper-62-PTSM in the Normal Human Heart

In six healthy volunteers, 62Cu-PTSM was administered at baseline and during a 6-min adenosine infusion. Dynamic PET images were obtained over a 20-min span..... Page 684

Carbon-11-Methionine and PET Is an Effective Method To Image Head and **Neck Cancer**

Uptake of ¹¹C-methionine in head and neck cancer in 23 patients was studied with PET using two methods: the influx constant, and the standardized uptake value..... Page 691

Changes in Regional Cerebral Blood Flow During Brain Maturation in Children and Adolescents

The reference values of regional cerebral blood flow for the main functional regions of the brain at various ages in childhood were established by SPECT studies of 42 children aged 2 days to 19 yr, considered neurologically normal. Characteristics of cerebral development changes are described.

Cerebral Perfusion in Progressive Supranuclear Palsy

To assess brain functional activity in patients with PSP, regional cerebral perfusion, as estimated by IMP and SPECT, was measured in 11 patients with a clinical diagnosis of PSP and 10 healthy controls..... Page 704

Preparation and Preliminary Evaluation of Technetium-99m-Labeled Fragment E₁ for Thrombus Imaging

Human Fragment E₁ was derivatized with a hydrazino nicotinate function to permit radiolabeling with reduced technetium. The modification reaction was carried out while the fragment E₁ was protected in a complex, so that the modification occurred in nonfunctional regions of the fragment E₁ molecule. Page 710

Evaluation of Metaiodobenzylguanidine Heart and Lung Extraction Fraction by First-Pass Analysis in Pigs

The first-pass extraction fraction of MIBG in pig heart and lungs was measured, and the relationship between cardiac EF and myocardial blood flow before and after injection of dipyridamole, cocaine and imipramine was determined..... Page 716

Fluorine-18-Labeled Androgens: Radiochemical Synthesis and Tissue Distribution Studies in Six Fluorine-Substituted Androgens, Potential **Imaging Agents for Prostatic Cancer**

The authors describe the synthesis of six fluorine-labeled androgens and their tissue distribution in diethylstilbestrol-

Three-Dimensional Tumor Dosimetry for Hepatic Yttrium-90 Microsphere Therapy

Three-dimensional calculations were performed for the VX2 tumor model in rabbits treated with hepatic arterial

administration of ⁹ Y glass microspheres Page 735	Gallium-67-Citrate Scanning in the Assessment of Disease Activity in Sarcoidosis	lead absorber sheets were attached to the front face of a high-energy parallel-hole collimator
Renal Functional Response to Captopril During Diuretic Therapy	A 35-yr-old white female, diagnosed two years prior to the latest admission	MIRD Dose Estimate Report Number
The effect of antihypertensive agents on the renal effects of angiotensin converting enzyme inhibition (ACEI),	as having sarcoidosis, presented with mild dyspnea on exertion and mild discomfort in her legs with occasional	15: Radiation Absorbed Dose Estimates for Radioindium-Labeled Autologous Platelets
relative to the diagnosis of renovascular hypertension, was examined in two rat	swelling	MIRD Dose Estimate Number 15 provides radiation absorbed dose
models with and without diuretic treatment prior to ACEI Page 739	Indium-111 Whole-Body Retention: A Method for Quantification of Disease	estimates for radioindium-labeled autologous platelets, along with the data on which the estimates were based, and
Course Before and After Treatment of a Patient with Budd-Chiari Syndrome	Activity in Inflammatory Bowel Disease Disease activity in 33 patients with	the assumptions used in calculations
Monitored by Iodine-123- Iodoamphetamine Scintigraphy per Os and per Rectum	inflammatory bowel disease was quantified by the measurement of "In retention, expressed as a percentage of	Editorial: The MIRD Approach: Remembering the Limitations
A 55-yr-old woman with Budd-Chiari syndrome was treated by percutaneous transluminal angioplasty with a balloon	whole-body activity at 3 hr postinjection	
catheter. Before and after treatment, portal scintigraphy was performed by the	Four Radionuclide Methods of Left	MIRD Pamphlet No. 14: A Dynamic Urinary Bladder Model for Radiation Dose Calculations
administration of ¹²³ I per os and per rectum	Ventricular Volume Determination: Comparison of Manual and an Automated Technique	A new, dynamic urinary bladder model for dosimetric calculations, which
Skeletal Nonvisualization in a Bone Scan Secondary to Intravenous Etidronate Therapy	The accuracy and reproducibility of three previously described and one new radionuclide method of measuring left ventricular volumes was studied	incorporates physiologically realistic features from several recently developed models, is proposed as a replacement for the standard MIRD phantom.
The authors discuss bone scan findings from a 65-yr-old female studied after	in 19 subjects using contrast ventriculographic volumes as the gold	Continuing Education: Radio-
initiation of intravenous etidronate disodium therapy for hypercalcemia associated with malignancy. The scan	standard	immunodetection in Cancer Identification
demonstrated essentially no skeletal uptake Page 748	A Method for Imaging Theuapeutic Doses of Iodine-131 with a Clinical Gamma Camera	Editorial: Thallium-201 and Technetium-99m-Sestamibi for
Clinicopathologic Conferences:	To image patients undergoing radioimmunotherapy, 1.6-6.4 mm thick	Assessing Viable Myocardium