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1338 Amino Acid Transport Measurements

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1375 Scintigraphic Assessment of Colonic Transport

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1387 Clinical Utility of Prostate-Specific Antigen

---

1394 Indium-111-Labeled Nonspecific IgG

---

1429 Technetium-99m-MIBI and Thallium-201 Uptake in  
Actinoycosis

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*A Full Table of Contents Begins on Page 4A, Annotations on Pages 7A-8A*



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**Anti-Carcinoembryonic Antigen Immunoscintigraphy (Technetium-99m-Mab BW 431/26) and Serum CEA Levels in Patients with Suspected Primary and Recurrent Colorectal Carcinoma**

One hundred forty-one patients were investigated for recurrent cancer with <sup>99m</sup>Tc-Mab BW 431/26 immunoscintigraphy. Whole-body scans were performed 5.50 hr postinjection, and SPECT of the abdominal region was done 6 and 24 hr postinjection.

..... Page 1319

**Indium-111-Labeled B72.3 Monoclonal Antibody in the Detection and Staging of Breast Cancer: A Phase I Study**

Sixteen patients with primary breast cancer were studied with a pancarcinoma Mab B72.3, and IgG1 molecule directed against tumor-associated glycoprotein. Digital, planar, and SPECT images were obtained serially to 96 hr..... Page 1326

**Increased Amino Acid Transport into Brain Tumors Measured by PET of L-(2-<sup>18</sup>F)Fluorotyrosine**

Seven patients with dilated-phase hypertrophic cardiomyopathy, seven with dilated cardiomyopathy, and eight controls were imaged 48 hr after injection of 74 MBq of <sup>111</sup>In-antimyosin Fab. Antimyosin scans were positive in greater than 90% of the patients..... Page 1333

**Editorial: Which PET Radiopharmaceutical for Brain Tumors**

..... Page 1346

**Confirmation of Short Solid-Food Lag Phase by Continuous Monitoring of Gastric Emptying**

Solid-phase gastric emptying in ten normal weight males subjects was studied using two opposed cameras and constant monitoring. Each subject ingested a 300-g meal containing labeled live pate. Lag phase was determined by three techniques.

..... Page 1349

**The Comparison of 2-<sup>18</sup>F-2-Deoxyglucose and 15-(ortho-<sup>123</sup>I-phenyl)-Pentadecanoic Acid Uptake in Persisting Defects on Thallium-201 Tomography in Myocardial Infarction**

Myocardial uptake of glucose and fatty acids into <sup>201</sup>Tl redistribution defects were studied in 32 patients with myocardial infarction by tomography using FDG oPPA.

..... Page 1353

**Insular Carcinoma: A Distinct Thyroid Carcinoma with Associated Iodine-131 Localization**

A 20-yr review of 35 cases diagnosed as anaplastic or undifferentiated thyroid carcinoma revealed five patients with insular carcinoma. Four patients showed postoperative <sup>131</sup>I localization and received therapeutic doses of <sup>131</sup>I. Three of the four showed extrathyroidal <sup>131</sup>I localization in neoplastic lesions..... Page 1358

**Editorial: Differentiating Anaplastic Thyroid Carcinoma.....**

..... Page 1363

**Multiple Swallow Test for the Quantitative and Qualitative Evaluation of Esophageal Motility Disorders**

Esophageal motility was evaluated from the analysis of six consecutive swallows in 86 patients. A sum image was generated comprising the representative information of an entire study. Calculation of the emptying rates and characterization of the bolus behavior was derived from the sum image and the single swallow data.

..... Page 1365

**Editorial: Improving Esophageal Transit Scintigraphy**

..... Page 1371

**A Noninvasive Scintigraphic Assessment of the Colonic Transit of Nondigestible Solids in Man**

The transit of <sup>111</sup>In-labeled capsules through the gastrointestinal tract was determined in volunteers.... Page 1375

**Use of Technetium-HMPAO To Demonstrate Changes in Cerebral Blood Flow Reserve Following Carotid Endarterectomy**

Twenty subjects with unilateral internal carotid artery stenosis underwent technetium-labeled HMPAO cerebral SPECT during acetazolamide dysautoregulation before and after internal carotid endarterectomy.

..... Page 1382

**The Clinical Utility of Prostate-Specific Antigen and Bone Scintigraphy in Prostate Cancer Follow-up**

Patients with pathologically confirmed prostate cancer, definitive prostatectomy, and/or radiation therapy more than 3 mo prior to bone scanning (and one bone scan and serum PSA sampling within 3 mo of each other) were studied prospectively..... Page 1387

**Quantitative Analysis of Radiophosphate Uptake in Asymptomatic Porous-Coated Hip Endoprostheses**

Quantitative analysis of radiophosphate uptake adjacent to the femoral component of porous-coated hip prostheses was conducted in 55 patients to establish normal temporal changes..... Page 1391

**Comparison of Indium-111 Nonspecific Polyclonal IgG with Indium-111-Leukocytes in a Canine Osteomyelitis Model**

Osteomyelitis was surgically produced in the proximal tibia of 10 dogs. A sham operation was performed on the other tibia. Serial imaging was performed over 13 wk later as the osteomyelitis progressed from acute to chronic.

..... Page 1394

**Scintigraphic Portrayal of Beta Receptors in the Heart**

Utilizing the beta antagonist, iococyanopindolol, the authors have attempted to develop a method for depicting beta adrenergic receptors in the living heart. . . . . Page 1399

**Postinjection L-Phenylalanine Increases Basal Ganglia Contrast in PET Scans of 6-<sup>18</sup>F-DOPA**

An unlabeled amino acid, L-phenylalanine was infused into the brains of rhesus monkeys beginning 15 min after the administration of <sup>18</sup>F-DOPA in order to increase the ratio of specific-to-nonspecific accumulation of radioactivity, thereby improving the sensitivity of <sup>18</sup>F-DOPA PET imaging of presynaptic dopamine systems. . . . . Page 1408

**Bone Marrow Dosimetry in Rats Using Direct Tissue Counting After Injection of Radiiodinated Intact Monoclonal Antibodies of F(ab')<sub>2</sub> Fragments**

Normal rats were injected intravenously with <sup>131</sup>I- and <sup>125</sup>I-labeled Mab or corresponding fragments. Ratios comparing radioactivity concentration in different tissues with that of bone marrow were calculated. . . . . Page 1414

**Clinicopathologic Conferences: The Role of Cimetidine-Enhanced Technetium-99m-Perchnetate Imaging for Visualizing Meckel's Diverticulum. . . . . Page 1422**

**Chronic Prosthetic Vascular Graft Infection with Technetium-99m-**

**Hexamethylpropyleneamine Oxime**

During an 18-mo period, <sup>99m</sup>Tc-HMPAO leukocytes successfully imaged chronic femoro-femoral prosthetic graft infection in a 77-yr-old man on several occasions, while <sup>68</sup>Ga-citrate imaging showed negative results on two occasions. . . . Page 1425

**Editorial: Chronic Prosthetic Vascular Graft Infection Visualization with Gallium-67. . . . . Page 1427**

**Technetium-99m-MIBI and Thallium-201 Uptake in Pulmonary Actinomycosis**

A chest lesion in an 11-yr-old boy presenting with chest pain, cough, fatigue, exertional dyspnea, and weight loss was imaged with <sup>99m</sup>Tc and <sup>201</sup>Tl. . . . . Page 1429

**Noninvasive Method To Obtain Input Function for Measuring Tissue Glucose Utilization of Thoracic and Abdominal Organs**

The input function is obtained from the corrected time-activity curve of the descending aorta, which is then corrected for partial volume effect and the difference in counts between plasma and whole blood. . . . Page 1432

**Effect of Bicarbonate on Stability of the Gallium-Transferrin Complex**

Studies of the stability of the gallium-transferrin complex in humans were done using ultrafiltration and dialysis. . . . . Page 1439

**Quantitative SPECT for Indium-111-labeled Antibodies**

**in the Livers of Beagle Dogs**

SPECT studies were acquired 1 day postinjection using a rotating gamma camera system with elliptical orbits in a 360-degree rotation. Uniformity-corrected images were reconstructed by use of the circular harmonic transfer algorithm. Liver volumes and activities were computed from 1-pixel thick (6.25 mm) transverse slices. . . . . Page 1442

**Development and Biologic Evaluation of a Kit for Preformed Chelate Technetium-99m Radiolabeling of an Antibody Fab Fragment Using a Diamide Dimercaptide Chelating Agent**

The process involves efficient transchelation of <sup>99m</sup>Tc from gluconate to 2, 3, 5, 6-tetrafluorophenyl 4,5-bis-S(1-ethoxyethyl) mercaptoacetamidopentanoate as an active ester ligand and subsequent conjugation to antibody lysine amine functional groups. . . . . Page 1445

**Single Dose Subcutaneous Iodine-131-Iodohippurate for Determination of Renal Plasma Flow**

Subcutaneous administration of a single dose of [<sup>131</sup>I]iodohippurate was used for the determination of renal plasma flow in 20 subjects during diuresis. Slow release of tracer permitted serial clearance measurements over 5 hr, which were then compared to standard, constant infusion, and PAH clearance measurements. . . . . Page 1452

**Continuing Education: Endocrine Imaging in the Management of Goiter and Thyroid Nodules: Part I . . . . . Page 1456**