717  Perfusion and Flow Velocity
723  rCBF Improvement in Cocaine Users
737  Immediate Thallium-201 Reinjection
762  Normalized Slope Ratio in Diuretic Renograms
773  FDG, Methionine and Thymidine to Monitor Adenocarcinoma Cell Line
821  Carbon-14-Urea Breath Test Dosimetry

Full Table of Contents Begins on Page 4A, Annotations on Pages 7A-8A
Concordance of Nutritive Myocardial Perfusion Reserve and Flow Velocity Reserve in Conductance Vessels in Patients with Chest Pain with Angiographically Normal Coronary Arteries

Nutritive perfusion reserve assessed with PET was compared with coronary flow reserve measured by Doppler catheter in nine patients with chest pain and angiographically normal coronary arteries ........................................ page 717

Regional Cerebral Blood Flow Improves with Treatment in Chronic Cocaine Polydrug Users

Ten cocaine-dependent polydrug users were studied with \(^{99m}\text{Tc-HMPAO}\) SPECT on three occasions to determine if abstinence from drug use improves cerebral perfusion .......... page 723

Role of Quantitative Planar Thallium-201 Imaging for Determining Viability in Patients with Acute Myocardial Infarction and a Totally Occluded Infarct Artery

Fifty-seven patients with a recent infarction and an occluded infarct related artery were evaluated to test the hypothesis that the amount of \(^{201}\text{Tl}\) on delayed planar images correlates with the extent of viable myocardium after acute myocardial infarction .... page 728

Immediate Thallium-201 Reinjection Following Stress Imaging: A Time-Saving Approach for Detection of Myocardial Viability

The results of immediate \(^{201}\text{Tl}\) reinjection were compared with 3-hr redistribution imaging in 120 consecutive patients evaluated for myocardial ischemia ....... page 737


Effects of Alterations in Systolic Pressure on Radionuclide Measures of Left Ventricular Filling Dynamics

Micromanometer left ventricular pressures and computer-assisted forward gated radionuclide angiograms were

In This Month's Issue of

JNM

acquired simultaneously in 15 normals and 17 patients with nonischemic heart disease .................. page 747

Comparison of Technetium-99m-ECD to Xenon-133 SPECT in Normal Controls and in Patients with Mild to Moderate Regional Cerebral Blood Flow Abnormalities

The uptake and distribution of \(^{99m}\text{Tc-ECD}\) was compared to \(^{133}\text{Xe}\) SPECT in subjects with mild to moderate flow abnormalities and in normal volunteers .......... page 754

Normalized Clearance to Uptake Slope Ratio: A Method to Minimize False-Positive Diuretic Renograms

The normalized slope ratio is introduced and used to evaluate 94 kidneys which are then compared to those of the standard Tc, clearance slope and percent retention .......... page 762

Radiation Dose to Positron Emission Tomography Technologists During Quantitative Versus Qualitative Studies

PET technologists were monitored during qualitative and quantitative studies, and during other specific tasks, to determine the average radiation dose received ........................ page 769

In Vitro Assessment of 2-Fluoro-2-Deoxy-D-Glucose, L-Methionine and Thymidine as Agents to Monitor the Early Response of a Human Adenocarcinoma Cell Line to Radiotherapy

At varying times following 30 Gy ir radiation, the uptake and retention of three tracers, FDG, L-methionine and thymidine, were examined in a human ovarian carcinoma line .......... page 773

High Accumulation of 2-Deoxy-2-Fluorine-18-Fluoro-D-Galactose in Well-Differentiated Hepatoma of Mice and Rats

Uptake of \(^{18F}\text{FDGal}\) in well-differentiated, spontaneous hepatoma of C3H mice and well-differentiated Morris hepatoma of the buffalo rat was compared with values for poorly differentiated hepatomas and tumors other than liver cancers .......... page 780

Selective Localization of a Radiolabeled Phospholipid Ether Analog in Human Tumor Xenografts

Athymic mice were implanted with human tumors of several histologies and imaged with a radioiodinated phospholipid analog .......... page 787

Changes in Local Cerebral Glucose Utilization in the Awake Rat During Acute and Chronic Administration of Ethanol

The rate of cerebral glucose metabolism was assessed in rats 10 min after acute administration of ethanol by gavage and following 20-24 days of chronic ethanol administration ........................................ page 793

Editorial: From the Cradle to the Grave: Alcohol and Its Effects upon the Brain ............. page 798

False-Positive Lymph Nodes by Radioimmunoguided Surgery: Report of a Patient and Analysis of the Problem

The authors' experience with a patient with false-positive lymph node localization following administration of \(^{111}\text{In}-labeled B72.3 Mab is reported and a suggestion is made as to the cause of the false-positive tests .......... page 804

Bronchogenic Carcinoma Mimicking Metastatic Thyroid Carcinoma

The authors report a false-positive \(^{111}\text{I}\) scan during follow-up of a patient with papillary thyroid carcinoma which developed 24 yr after radiation therapy for Hodgkin's disease .......... page 809

Indium-111-Labeled Leukocyte Scintigraphy in a Case of Cutaneous Sarcoïdosis

A 54-yr-old woman with cutaneous nodules showed accumulation of \(^{67}\text{Ga}\)
and 111In-labeled leukocytes in skin nodules, bilateral pulmonary hilar lymph nodes and the right upper mediastinum. page 812

Technetium-99m DMSA Uptake in Intra-abdominal Massive Deposit of Amyloid Protein

Technetium-99m-dimercaptosuccinic acid scintigraphy was performed in two patients with pathologically confirmed primary amyloidosis. page 815

Indium-111-Leukocyte Imaging in Gaucher's Disease

Massive hepatomegaly, lack of central marrow activity and extensive lymph node uptake characterize indium-labeled mixed autologous leukocyte scintigraphy of a 29-yr-old man with Gaucher's disease and fever of unknown origin. page 818

Radiation Dose Estimates for the Carbon-14-Labeled Urea Breath Test

Dose estimates for the 14C-urea breath test were calculated for males and females who test positive and negative for gastric H. pylori infection. page 821

Estimation of Left Ventricular Mass and Infarct Size from Nitrogen-13-Ammonia PET Images Based on Pathological Examination of Explanted Human Hearts

Fourteen hearts from patients with 13N-ammonia scans prior to transplantation were studied in order to develop a technique to quantify left ventricular myocardial mass and infarct size in chronic ischemic heart disease. page 826


Functional Mapping of Flow and Back-Diffusion Rate of N-Isopropylp-Iodoamphetamine in Human Brain

Flow and back-diffusion rates of IMP in the human brain were measured by serial dynamic SPECT following intravenous bolus injections of the tracer. page 839

Validation of Renal Output Efficiency as an Objective Quantitative Parameter in the Evaluation of Upper Urinary Tract Obstruction

Eleven healthy volunteers and 34 patients suspected of upper urinary obstruction were studied with 99mTc, MAG3 and a standard protocol. Furosemide was given at 18 min and ROE was calculated in each kidney and the results correlated with the final diagnosis. page 845

Clinicopathologic Conferences: Scintigraphy in the Evaluation of Liver Masses: Cavernous Hepatic Hemangioma. page 849

Gallium-67 Scintigraphy in Tuberculous and Nontuberculous Infectious Spondylitis. page 853

Editorial: Tough Choices: Who Is to Make the Call?

Someday soon, this physician-author believes, nonphysicians without clinical judgement or experience will make treatment decisions based on economic factors. According to the author, we have no one but ourselves to blame. page 860


The Journal of Nuclear Medicine • Vol. 34 • No. 5 • May 1993