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In This Month's Issue of

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captopril. Probing the ACE Activity In Vivo by Positron Emission Tomography

To evaluate the feasibility of probing the distribution of ACE in vivo using PET, 4- ^{18}FCAP was prepared by the reaction of the triflate 2 with K^{18}F/Kryptofix 222 in MeCN followed by hydrolysis..... *Page 1730*

Brief Inhalation Method To Measure Cerebral Oxygen Extraction Fraction with PET: Accuracy Determination Under Pathologic Conditions

Non-human primates were assessed by comparing oxygen extraction fractions (OEF) measured under pathologic conditions of reduced cerebral oxygen metabolism. *Page 1738*

Gamma Imaging with Negatively Charge-Modified Monoclonal Antibody: Modification with Synthetic Polymers

Negatively charged antimyosin Mabs were tested for specific target localization and visualization in vivo in an experimental canine model of acute myocardial infarction. *Page 1742*

Editorial: Optimizing Antibodies for Use in Nuclear Medicine
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SPECT Imaging of the Benzodiazepine Receptor: Feasibility of In Vivo Potency Measurements from Stepwise Displacement Curves

Repeated injections of increasing doses of each of five benzodiazepine drugs yielded stepwise displacement curves, which were then analyzed to measure the in vivo potencies of these agents..... *Page 1754*

Editorial: Application of SPECT to the In Vivo Measurement of Benzodiazepine Potency... *Page 1762*

Radioiodinated 1-(5-Iodo-5-deoxy-β-D-arabinofuranosyl)-2-nitro-imidazole (IAZA): A Novel Marker of Tissue Hypoxia

IAZA was synthesized and then labeled with ^{125}I. Whole-body elimination and biodistribution studies in BALB/c mice bearing implanted, subcutaneous EMT-6 tumors were undertaken.... *Page 1764*

An Investigation of the Magnitude and Causes of Count Loss Artifacts in SPECT Imaging

A quantitative evaluation and an investigation of the mechanism of the count losses that can occur in SPECT imaging are described..... *Page 1771*

Clinicopathologic Conferences: Bile Leak Following an Elective Laparoscopic Cholecystectomy: The Role of Hepatobiliary Imaging in the Diagnosis and Management of Bile Leaks..... *Page 1777*

Duration of Etidronate Effect Demonstrated by Serial Bone Scintigraphy

The authors report the changes in skeletal uptake of ^{99m}Tc-MDP in a patient who received a single dose of EHDP for hypercalcemia... *Page 1782*

Pentavalent Technetium-99m-DMSA Uptake in a Patient Having Multpile Myeloma Without Amyloidosis

A 61-yr-old woman presenting with tumors in the clavicular and sternal regions and underwent pentavalent ^{99m}Tc-DMSA imaging.
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Isotopic Findings in Anomalous Origin of the Left Coronary Artery from the Pulmonary Artery: Report of an Adult Case

A gallium scan of a 17-yr-old patient suffering from anomalous origin of the left coronary artery from the main pulmonary trunk was abnormal.
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Gallium-SPECT in the Detection of Prosthetic Valve Endocarditis and Aortic Ring Abscess

A 52-yr-old man who had a bioprosthetic aortic valve developed *Staphylococcus aureus* bacteremia. Echocardiography did not demonstrate vegetations on the valve, but gallium-SPECT identified a focus of activity..... *Page 1791*

Reorientation of the Left Ventricular Long-Axis on Myocardial Transaxial Tomograms by a Linear Fitting Method

The reproducibility of the reorientation with a semi-automatic method was compared with manual selection of the LV long-axis.
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A Theoretical Comparison of First-Pass and Gated Equilibrium Methods in the Measurement of Systolic Left Ventricular Function

The results of a simple theoretical calculation from first principles that compare first-pass and gated equilibrium radionuclide studies of LV function based on their relative statistical precision are presented.
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An Improved Method for the Quantification of Left-to-Right Cardiac Shunts

The gamma variate which is fitted to the first-pass portion of the lung curve was used to generate a curve which simulates the response of a normal lung curve with systemic recirculation..... *Page 1808*

Cone-Beam Transmission Computed Tomography for Nonuniform Attenuation Compensation of SPECT Images

Cone-beam transmission CT was implemented on a rotating gamma camera. Attenuation compensation accuracy was tested using basic geometries of line sources and nonuniform density models. *Page 1813*

Simplified Methods for Renal Clearance in Children: Scaling for Patient Size

Iodine-131-OIH plasma clearance curves were measured in 68 adults and in 30 children weighing 38 pounds or more. Clearance was calculated using two methods: an empirical single-sample formula and a two-sample method based on a two-compartment model..... *Page 1821*