

Special Lecture 2**New Horizons in Nuclear Medicine in 1981****William H. BEIERWALTES, M. D.**

*Professor of Medicine, Physician-in-Charge Division of Nuclear Medicine,
University of Michigan Medical Center, Ann Arbor, Michigan 48109*

Diagnosis

The development and clinical application of ^{131}I -metaiodobenzyl-guanidine in the Nuclear Medicine Division at the University of Michigan has allowed us to portray scintigraphically the spectrum of pheochromocytoma in multiple endocrine neoplasia (Ann. Int. Med. 94:762, June, 1981) and to detect pheochromocytomas (and remnants and recurrences after surgery) that could not be detected by other methods (N. Eng. J. Med. 305:12, July 2, 1981). Similarly, we have successfully detected the animal analogue of carcinoid using radioiodine labeled enzyme inhibitors. We have detected choriocarcinomas using radioiodinated antibodies to hCG and biochemical defects in the human myocardium using ^{123}I -hexadecenoic acid.

THERAPY

A 33 year experience in treating Graves disease and well-differentiated thyroid carcinoma with ^{131}I has encouraged us to begin therapeutic trials with ^{131}I -MIBG for adrenal medullary hyperplasia, and metastatic carcinoma of the adrenal medulla.