NUCLEAR CARDIOLOGY: CONSOLIDATING THE PRESENT WHILE MOVING INTO THE FUTURE – PART II

Summary: This exciting and informative session will cover two key aspects in the field of radionuclide cardiac imaging. Part I will cover the most important current procedures in nuclear cardiology: combined gated rest and stress SPECT perfusion imaging, and radionuclide ventriculography. This will include discussions of radiotracers and instrumentation, stress testing, skills in recognizing pitfalls and artifacts, and presentation of evidence of usefulness in clinical decision-making. Part II will cover areas of the most rapid evolution: perfusion and metabolic PET imaging, the augmented potentials of PET-CT and SPECT-CT, imaging of ischemia, cell death, angiogenesis, and gene expression. This will be considered in the context of parallel developments in ultrasound, CT, and MRI imaging.

Learning Objectives:
Upon completion of this session, the attendee will be able to:

- Discuss the methodology and instrumentation needed in order to achieve good quality gated rest and stress SPECT imaging and gated blood pool imaging.
- List at least three reasons for performing gated imaging with SPECT perfusion imaging in order to augment the clinical value of the study.
- Identify four examples of artifacts that result from poor camera performance, quality control errors, data acquisition and processing errors, or patient physiological factors.
- Discuss at least three examples where PET imaging offers additional value in cardiac imaging.
- Give one example of ongoing advances in each of the following areas of cardiac imaging: radiopharmaceuticals, instrumentation, imaging of pathophysiological processes, ultrasound, CT and MRI.

Sunday, February 8, 2004 (Marina Ballroom 1)

10:00am-10:30am  Myocardial Perfusion Imaging with PET
Josef Machac, MD

10:30am-11:00am  Blood Pool Imaging-Its Unique Ability to Characterize Myocardial Contraction and Conduction
Elias H. Botvinick, MD

11:00am-11:30am  Imaging of Cardiac Function, Perfusion, and Metabolism with CT and MRI
Gautham P. Reddy, MD, MPH

11:30am-12:00pm  Present and Future SPECT/PET Tracers
Henry VanBrocklin, PhD

12:00pm-12:30pm  Targeted Imaging of Vulnerable Plaques
Jagat Narula, MD, PhD

12:30pm-1:00pm  Imaging of Post-Infarction Remodeling with MMP Targeted Tracers
Albert Sinusas, MD