25 Years of Highlights

Nuclear cardiology stole the show at the 1978 SNM Annual Meeting. MUGA was the new acronym for multiple-gated scintigraphic blood-pool imaging (Fig. 1), which was one among several new and exciting technologies that nuclear medicine was introducing into the clinical setting. Beginning in 1968, the PDP-8 Digital Equipment Corporation minicomputer had been used to assess the effectiveness of urokinase, a thrombolytic enzyme, in lysing potentially fatal massive pulmonary embolism (Figs. 2 and 3). By 1978, nuclear medicine had become the first medical specialty to integrate computers into daily practice. Central mainframe computers had failed to make the grade, but minicomputers in the nuclear medicine department would serve as models for other specialties.

The success of myocardial perfusion imaging in 1978 was linked to the growing popularity of a therapeutic procedure, coronary artery bypass grafting (CABG), once again illustrating the general principle that success in nuclear medicine occurs when procedures are linked to medical decision making in common diseases, such as cancer and cardiac and neurological diseases. $^{201}$TI was replacing $^{43}$K, which had been the first agent for imaging regional myocardial perfusion. Several papers at the meeting discussed drugs such as dipyridamole that increased myocardial perfusion in normally perfused heart muscle and were potential substitutes for exercise in stress testing.

Right and left ventricular function testing in “first-pass” imaging with the Anger camera was used in patients with chronic obstructive lung disease, as well as in those with left ventricular function abnormalities. Measurement of ejection fraction with the Anger camera and nonimaging probes such as the nuclear stethoscope was an important topic of discussion. Unfortunately, this never caught on, in part because of the widespread belief that “one image is worth a thousand time/activity curves.” The ability of $^{99m}$Tc-pyrophosphate and radioiodinated antibodies to image regions of myocardial infarction was also reported at the 1978 meeting but failed to achieve widespread use.

The effect that CT would have on nuclear medicine was a topic of major interest at the meeting. Spatial resolution at the time was approximately 2 cm for $^{99m}$Tc tracers, which limited the anatomical information that could be provided by “molecular imaging.” William H. Oldendorf, the Paul Aebersold Award winner at the meeting, predicted that CT technology...
would be the death knell for radionuclide brain imaging. This might have been true had PET and FDG, $^{15}$O, and other tracers for imaging dopamine and opiate receptors not been introduced in the 1980s. Even in 1978, reports of more specific radiotracers, such as $^{11}$C-spirperone for imaging dopamine receptors, were revealing new anatomic information. In fact, the development of new and exquisitely sensitive anatomic imaging techniques would result in redirection of nuclear medicine back to its original biochemical (molecular) orientation.

$^{67}$Ga was being used in oncology, particularly in lymphomas, but the great enthusiasm that would accompany announcements of the effectiveness of $^{18}$F-FDG was still to come. Superimposition of rectilinear scan images over conventional x-rays had been carried out routinely beginning in the late 1950s, and several papers at the 1978 meeting addressed this topic. The utility of fused imaging in yielding highly specific anatomic and functional information, however, lay well in the future.

The Second World Congress of Nuclear Medicine and Biology was held in Washington, DC, September 17–19. At the time, world political leaders were using the hotel as a base for meetings to create a “lasting framework for peace in the Middle East” as a follow-up to the recent Camp David peace talks. Hopes were high, both for the growing field of nuclear medicine and for world accord.

In wider scientific news, the year 1978 saw the birth of genetic engineering in the laboratory of Herbert Boyer at the University of California at San Francisco with the construction of a synthetic version of the human insulin gene that was inserted into the bacterium *Escherichia coli* to produce therapeutic insulin.

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SNM Historian

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**SNM Past President Maynard Named to NIBIB Advisory Council**

Emeritus member and past president of the SNM, C. Douglas Maynard, MD, was named to the first National Advisory Council for Biomedical Engineering (NACBIB) of the National Institute for Biomedical Imaging and Bioengineering (NIBIB) in November 2002.

Maynard was one of the original members of the Academy of Radiology Research, which lobbied for the formation of this new branch of the National Institutes of Health (NIH). NACBIB will advise the Secretary of Health and Human Services (HHS); the Assistant Secretary for Health, HHS; the director of NIH; and the director of NIBIB on matters relating to the conduct and support of research, training, health information dissemination, and other programs that address biomedical imaging, biomedical engineering, and associated technologies and modalities with biomedical applications.

The first meeting of the 10-member council was held January 16 and 17 on the main campus of NIH in Bethesda, MD, and most of the January 16 session was open to the public. The agenda included scientific and training programs and grant reviews. NACBIB will meet three times each year, usually in January, May, and September. Council members will provide second-level review of all applications for funding of research grants or cooperative agreements with NIBIB. The council will also advise NIBIB on policy and program priorities.

After a long career at Wake Forest University (WFU) School of Medicine (formerly Bowman Gray School of Medicine) in Winston-Salem, NC, Maynard is currently a professor of radiology and special advisor to the president of WFU Health Sciences. In addition to his service to the SNM, he is a past president of the Radiological Society of North America (RSNA), the American Board of Radiology, and the Society of Chairmen of Academic Radiology Departments; past chair of the Board of the RSNA Research and Education Foundation; and a past member of the American College of Radiology Board of Chancellors.

For more information about NACBIB, visit the NIBIB Web site at: www.nibib.nih.gov.

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