

# Nuclear Medicine, Present and Future

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When the first scientific meeting of the society of nuclear medicine was held in 1954 scientific papers. Presented at the meeting numbered less than 10. 27 years later, the 28th annual meeting of the society of nuclear medicine showed over 400 scientific presentations on the program. The number, 400, represents less than one-third of papers submitted for the meeting, thus reflecting remarkable growth of the nuclear medicine field during the past decades. Currently, there is no medical subspecialty field that does not use nuclear medicine procedures for a diagnostic and prognostic evaluation of patients. Number of various routine clinical imaging procedures reaches 40, including less frequently performed but very useful procedures such as: detection of gastrointestinal bleeding, evaluation of a shunt patency, detection of esophageal or ureteral reflux, diagnosis of biliary atresia, radionuclide angiography, and adrenal scintigraphy, etc.

While the progress in the radiological instrumentation has been so remarkable in the recent years that new techniques are introduced every year to the field, values of routine, major nuclear medicine imaging procedures, such as scintigraphy of bones, lungs, tumors, and functional studies of the heart as diagnostic techniques remains most high. This is because the procedures are technically simple, non-invasive yet highly effective.

As more sophisticated instruments-techniques are being developed in the fields of computed tomography(CT), ultrasonography, and digital radiography, some may foresee a declining future of the nuclear medicine as many did when the CT was first introduced. Radionuclide studies, however, is on the basis of physiology of the system or function of an organ therefore, applications of nuclear medicine procedures are to become more active and extensive as more suitable radionuclides as metabolic substrates widely available in the foreseeable future.

Though, a brighter future of the nuclear medicine depends, at least in part, on more extensive development of techniques for metabolic studies, active and rapid growth of the nuclear medicine will continue for the future as patho-physiology of an organ and of a disease process becomes increasingly more important for a proper and efficient management of patients.