Nuclear medicine in Vietnam

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Abstract. Despite the presence of many bright Vietnamese nuclear medicine physicians and scientists, the level of clinical practice languishes seriously behind that of Europe, the United States, Japan and most other parts of the world. This is directly attributable to the country’s severe poverty, which places serious constraints on the number of available pieces of functioning imaging equipment, the ability to service equipment and establish appropriate quality assurance and preventative maintenance programs and the ability to purchase adequate radiopharmaceuticals to serve their patients’ needs. At this time, the Vietnamese nuclear medicine community is anxious to enhance its contact with colleagues throughout the world. They need and welcome help in obtaining instrumentation, in vivo and in vitro diagnostic kits and educational aids from outside agencies, commercial countries and medical centers that are able to assist them. They would be most appreciative to receive and encourage visits from professional colleagues who would be able to provide lectures, seminars, books, journals and other teaching tools that would contribute to the upgrading of their clinical practice of nuclear medicine.

Key words: Vietnam nuclear medicine – Third World nuclear medicine – Southeast Asia nuclear medicine


In June 1996, my family and I had the unique opportunity to visit Vietnam (VN). The circumstances were unusual for me in that the impetus for the journey had resulted from an official Vietnam agency invitation to our 15-year-old daughter to visit with Vietnamese children participating in a student-to-student “pen pal” program which she had initiated. Having no knowledge whatsoever of the status of nuclear medicine in Vietnam, I started an inquiry among our international colleagues. Finally, Dr. J. Konishi of Kyoto, Japan provided me with the name and address as well as fax number of Professor Phan Sy An, head of the Nuclear Medicine Department at the Bach Mai Hospital in Hanoi. Dr. Konishi had visited him in 1995. My fax correspondence was immediately answered and visits were set up, in both Hanoi and Ho Chi Minh (HCM) City.

The origin of nuclear medicine in Vietnam occurred in 1969–1971. Professor Phan Van Duyet trained in Czechoslovakia and Professor Phan Sy An trained in Poland. The former returned to Hanoi’s Bach Mai Hospital in 1969 and was joined by the latter in 1971. Professor Nguyen Cong Thuy established the Nuclear Medicine Department at Hanoi’s Hospital 103 following his training in the Soviet Union.

The south of the country had its first Nuclear Medicine Department at Ha Dong Medical College when Professor Nguyen Xuan Pach returned following training in East Germany. Growth has been quite slow because of the lack of financial support needed to obtain equipment in our technology-dependent specialty. As with other underdeveloped areas of the world, the International Atomic Energy Agency (IAEA) in Vienna has helped to provide much of the equipment and training support which exists in Vietnam.

Fig. 1. Location of most of the nuclear medicine centers in Vietnam
Vietnam is an extremely poor country with the average annual per capita income in the north averaging U.S. $280. It is a bit better in the south at U.S. $450 per capita. Either figure easily fits into the category of extreme poverty. It therefore follows that little or no domestic funds are available for medical equipment and certainly nothing available to support our relatively sophisticated nuclear medicine technology. Most equipment is second-hand and has been donated by the IAEA and other generous benefactors. Radiopharmaceuticals and kits are in short supply and, for the most part, arrive monthly. Patient needs cannot be fully met by the available resources. Breakdown is frequent and most of the equipment cannot be adequately maintained because of limited service personnel, spare parts, and training programs. Preventative maintenance and quality assurance programs are inadequate because of the lack of funding sources. In the overall assessment of health care needs in VN, nuclear medicine has not fared well.

Overall, there are eight medical collages in Vietnam. Four are located in the north, two in the middle and two in the south of the country. However, only two independent medical school departments of nuclear medicine exist. One is at Hanoi Medical College (est. 1987) with its clinical department at Bach Mai Hospital and the other is at the Ha Dong Medical College. The total number of clinical nuclear medicine facilities in VN is 21, 10 in the north and 11 in the south. Figure 1 shows the location of

Fig. 2. The Nuclear Medicine Center at the Bach Mai Hospital in Hanoi

Fig. 3. Professor Pan Sy An, Head of Bach Mai’s Nuclear Medicine Department and Vice-President of the Vietnam Society of Radiology and Nuclear Medicine

Fig. 4. Bottom row, left to right: Professor Nguyen Khac Giang (surgeon who translated Dr. Freeman’s lecture), Professor Phan Sy An, and Dr. Hoang Thuy Ho (physicist). Top row: Dr. Leonard M. Freeman and Dr. Mai Trong Khoa (Head, Radioimmunoassay Laboratory)