Current Status of Nuclear Cardiology in Romania

Background: Non-invasive myocardial perfusion imaging (MPI) is an important tool in detecting and in risk stratification of obstructive coronary disease. Despite the relatively low specificity – myocardial perfusion SPECT is the most frequently used worldwide cardiac imaging technique. With a population of 22 million people Romania is one of the largest countries in Eastern Europe. According to data published by IAEA and WHO, 80% of cardiovascular disease deaths occurred in low- to middle-income countries. In a report published in 2008, in Romania there were the highest cardiovascular related mortality rate in the EU countries, with more than 25% of these deaths being in patients younger than 65.

Aim: To assess and present the current status and future direction of development in the field of Nuclear Cardiology in Romania.

Methodology: In Romania, Nuclear Medicine specialists are trained and licensed to perform and report Nuclear Cardiology studies, after completing formal training in nuclear medicine and after being licensed in the use of unsealed sources by the radiation control department of the Government. However there is a matter of concern in performing stress studies which is not allowed to be done without the cooperation with a cardiologist.

In this paper we have reviewed the main issues concerning the use of Nuclear Medicine techniques in the field of cardiology. Data were collected from websites of Nuclear Medicine departments, but also from the Romanian Society of Nuclear Medicine and from the National Insurance Company website.

Results: Currently, less than 10% of Nuclear Medicine studies are nuclear cardiology examinations. In Romania, there are 30 Nuclear Medicine departments, 6 of them with PET-CT capabilities. 9 Nuclear Medicine departments are in the private sector. There are only 7 departments in which MPI SPECT is performed – 6 in public, 1 in private. The limited budget for radiopharmaceuticals seems to be the main reason which influences decision of head of departments to perform more general NM studies and few MPI. This together with low reimbursement is discouraging departments to start real projects in Nuclear Cardiology. Private sector faces similar issues, because most patients are insured in the National Public System, with only a minority privately insured.

Currently, no department is using PET-CT for myocardial imaging, mainly because reimbursement in PET is allowed only for oncologic indications. However there are several projects which include installation of PET-CT scanners in some university-related hospitals where new procedures including cardiology and neurology will be introduced.

With a high prevalence and mortality related to CVD and various co-morbidities, efforts should be made in order to increase capabilities of departments to perform nuclear cardiology studies in order to ensure a higher diagnostic precision, risk stratification and a better management of patients.

Conclusion: Increased use NM applications in the field of cardiology will require a larger number of nuclear medicine specialists to increase their skills by accessing dedicated courses/trainings. Efforts should be made in this respect, to ensure high quality investigations and improve diagnostic management.

Country/Organization invited to participate

ROMANIA