

Vienna, Austria

Annual Congress of the
European Association of Nuclear Medicine

October 21 –25, 2017
Vienna, Austria

Mini Course 1 (Technologists)

Sunday, October 22, 14:30-15:30

Session Title

Cardiology: Pitfalls & Artefacts

Chair

Luca Camoni (Brescia)

Programme

14:30 - 15:00 Adriana Ghilardi (Bergamo): Common Artefacts in Nuclear Cardiology Imaging

15:00 - 15:30 Albert Flotats (Barcelona): Artefacts and Image Interpretation

Summary

The nuclear cardiology imaging is a well-established and widely used technique for the assessment of patients with known or suspected coronary artery disease and related pathologies.

In recent years hybrid SPECT/CT, PET/CT and solid-state detector dedicated cardiac cameras were increasingly introduced in ever more nuclear medicine departments and have been shown to offer improved accuracy in addition to new imaging protocols and novel applications. However, with new technology comes new artefacts, and unexpected pitfalls may arise.

The purpose of this session is to familiarize the technologists with the causes and effects of technical, patient-related, and operator-related pitfalls and artefacts associated with the nuclear cardiology imaging. Although it is an accurate and reliable diagnostic study, artefacts must be avoided, or detected and corrected, to minimize the rate of false-positive or false-negative results. Therefore, close attention to the details of acquisition protocols, processing techniques, and image interpretation is needed to ensure high diagnostic quality in nuclear cardiology studies and to improve the skills of the technologist in the managing of the nuclear medicine myocardial artefacts. A knowledge of the physician needs is mandatory to understand how the artefacts can affect the image interpretation and the patient's clinical path.

Educational Objectives

- Know the artefacts and pitfalls of the nuclear cardiology imaging
- Get familiar with the causes and effects of artefacts and pitfalls
- Understand how to avoid, detect and correct the artefacts
- Understand what are the challenges in each imaging modality
- Basic understanding of the artifact-related pitfalls in the image interpretation

Key Words

nuclear cardiology, pitfalls, artefacts, interpretation

Take Home Message

Close attention to the details of acquisition protocols, processing techniques and image interpretation is needed to ensure high diagnostic quality in nuclear cardiology studies.