

Düsseldorf, Germany

Pitfalls & Artefacts 2 (Oncology/Physics) - Interactive **Sunday, October 14, 11:30-13:00**

Session Title

Artefacts in Hybrid Imaging

Chairpersons

Lioe-Fee de Geus-Oei (Leiden)
Bernhard Sattler (Leipzig)

Programme

- 11:30 - 11:50 Gerald Antoch (Düsseldorf): Basic Artefacts in Oncology CT
- 11:50 - 12:10 Roland Hustinx (Liège): Artefacts in SPECT/CT
- 12:10 - 12:30 Bernhard Sattler (Leipzig): Artefacts in PET/CT
- 12:30 - 12:50 Wai Lup Wong (Middlesex): Is it Artefact or Physiological Uptake?
- 12:50 - 13:00 Panel Discussion

Educational Objectives

1. To learn about the classes and sources of hybrid imaging technical and clinical artefacts.
2. Major combinations of clinical imaging modalities such as SPECT/CT, PET/CT and PET/MRI are addressed showing examples of frequently as well as rarely occurring artefacts
3. To learn about solutions and work-arounds for the demonstrated kinds of artefacts

Summary: The use of hybrid cross-modality molecular imaging modalities aims at taking advantage of structural and functional images being inherently co-registered to each other. Hybrid systems such as PET/CT and SPECT/CT have now been in use for almost two decades and have been shown to improve clinical interpretation and patient management. PET/MR is also expected to greatly improve the understanding of the disease state and its management. These hybrid modalities, however, also introduce a host of image artefacts that are dependent on the system design or other circumstances belonging to the field of topics of patient preparation, application of the radiotracer or artificial implants that may hamper the quality of fused structural and functional images.

Keywords

Hybrid PET/CT, SPECT/CT, PET/MRI, Artefacts, Solutions