

Pitfalls & Artefacts 5

Inflammation & Infection Committee

Thursday, October 29, 13:30-15:00

Session Title

FDG-PET Performed or Suspicious for Infections and Inflammation, Including COVID-19

- Fever, Vascular Graft, Granulomatosis, Covid-19

Chairperson

Jean-Noël Talbot (Paris, France)

Programme

- 13:30 - 13:50 Sona Balogova (Bratislava, Slovakia): Fever or Inflammatory Syndrome of Unknown Origin
- 13:50 - 14:10 Chiara Lauri (Rome, Italy): Vascular Grafts Infections
- 14:10 - 14:30 Valentina Ambrosini (Bologna, Italy): Granulomatous Diseases
- 14:30 - 14:58 Jean-Noël Talbot (Paris, France): Covid-19 Infection

Educational Objectives

1. Remind the mechanisms of FDG accumulation in inflammatory and in infectious lesions and their consequences for potential pitfalls
2. When and how is it possible to report lesions to be of infectious rather than inflammatory (or neoplastic) origin?
3. When and how infection by Covid-19 should be suspected on FDG PET/CT in an asymptomatic patient? Is there a deliberate indication for FDG PET/CT in patients infected with Covid-19?
4. Application to real practical cases of fever of unknown origin, suspicion of infection of a vascular graft, sarcoidosis, tuberculosis, covid-19 infection.

Summary

The presentations will cover the current role of ^{18}F -FDG PET/CT in the diagnosis, localisation and evaluation of extent of non-osseous infection and/or inflammation. After an introduction explaining basic premises and common potential pitfalls to imaging infection and/or inflammation with FDG, the session will be based on the interactive evaluation of clinical cases. The first topic will be fever or inflammation of unknown origin, a very fruitful indication of FDG PET with a wide range of potential aetiologies that deserve to be differentiated based on imaging, clinical and biochemical patient's data. In case of symptoms of infection in a patient implanted with a vascular graft, what is the added value of FDG and how to better differentiate infection and inflammation after a recent intervention? In which clinical settings is FDG PET able to provide significant information for the management of sarcoidosis and tuberculosis? Is there a role of FDG for treatment follow-up? How to detect cardiac involvement? How to avoid pitfalls in this context? The rapid spread of the Covid-19 epidemic made it impossible to detect all the infected patients. Suggestive CT patterns of Covid-19 infection in asymptomatic patients have been rapidly described apparently matching unexpected FDG foci. Nuclear physicians must be aware of those signs and whether there would be indications of FDG PET in patients with known Covid-19 infection.



VIRTUAL

Voting systems will allow the attendees to express their opinions and to evaluate their experience and skills in these important applications of FDG PET.

Key Words

FDG, pitfalls, interactive case reading, infection, inflammatory syndrome, fever of unknown origin, vascular graft, sarcoidosis, tuberculosis, covid-19