Learn & Improve Professional Skills (LIPS) Track – Session 11
Bone & Joint Committee
Tuesday, September 12, 15:00 – 16:30

Session Title
Pitfalls and Common Bony Findings in PET-CT/MRI using Novel Tracers

Chairpersons
Irene Burger (Zurich, Switzerland)
Mohsen Beheshti (Salzburg, Austria)

Programme

15:00 – 15:30 **Alexander Maurer** (Zurich, Switzerland): PSMA PET/CT - atypical bony patterns using different radioligands - tips on assessment of bone metastases

15:30 – 16:00 **Kim Pabst** (Essen, Germany): FAPI PET/CT - what should be considered in interpretation of bony lesion?

16:00 – 16:30 **Simon Wan** (London, UK): PET/MRI - Pitfalls and normal variations in assessment of bone metastases

Educational Objectives

1. To review the variations using different PSMA-radioligands, normal biodistribution and benign findings, pitfalls and artefacts associated with PSMA PET/CT, particularly in the assessment of bone metastases
2. To provide an overview of the clinical applications, normal biodistribution, variations, pitfalls and artefacts of FAPI PET/CT, focusing on the assessment of bone disease.
3. To gain knowledge of PET/MRI imaging with different radiotracers and its common challenges in the assessment of bone metastases, and to discuss current evidences and trends.

Summary
Several potential pitfalls emerge over time and need to be summarized for the imaging community following the introduction of a new radiotracer. Challenging findings have been reported in the past for hybrid PET/CT and PET/MRI imaging using prostate specific membrane antigen (PSMA) radioligands, which have been associated with a variety of false-positive findings. In addition, promising preclinical and clinical results have been introduced with the recent development of quinoline-based PET tracers that act as fibroblast activation protein inhibitors (FAPIs). This session, review the pitfalls and common benign findings of PET/CT and PET/MRI using PSMA- and FAPI-radioligands particularly in assessment of bone metastases.

Key Words
FAPI, PSMA, bone metastases, pitfalls, PET/CT, PET/MR