Teaching Session 7
European School of Multimodality Imaging & Therapy (ESMIT)
Wednesday, October 16, 10:00-11:30

Session Title
Reading with the Experts - PET/CT in Neuroendocrine Tumours

Chairpersons
Paola Anna Erba (Pisa, Italy)
Lucia Noskovičová (Bratislava, Slovakia)

Programme
10:00 - 10:40 Valentina Ambrosini (Bologna, Italy): PET/CT with $^{68}$Ga-Radiolabelled SSTR Analogues - Interactive Clinical Cases Presentation
10:40 - 11:10 Soňa Balogová (Bratislava, Slovakia): PET/CT with $[^{18}F]$DOPA - Interactive Clinical Cases Presentation
11:10 - 11:30 Paola Anna Erba (Pisa, Italy): Wrap-up and Conclusions

Educational Objectives
1. Learn the optimal patient preparation and acquisition protocol for $^{68}$Ga-radiolabelled SSTR analogues and $[^{18}F]$DOPA PET/CT
2. Understand the normal biodistribution and recognize the most common pitfalls/variants of $^{68}$Ga-radiolabelled SSTR analogues and $[^{18}F]$DOPA PET/CT
3. Learn the most typical clinical scenario where the use of $^{68}$Ga-radiolabelled SSTR analogues and $[^{18}F]$DOPA PET/CT, $[^{18}F]$FDG in patients with NETs is indicated
4. Learn what is necessary to actively participate in clinical case discussion within a NETs’ multidisciplinary team discussion

Summary
The use of $^{68}$Ga-radiolabelled SSTR analogues and $[^{18}F]$DOPA PET/CT and $[^{18}F]$FDG in patients with NETs is currently getting more and more used in clinical practice. This interactive case-based session will provide attendees knowledge of the optimal patient preparation and acquisition protocol for PET/CT imaging with $^{68}$Ga-radiolabelled SSTR analogues and $[^{18}F]$DOPA, the normal biodistribution pattern of each radiopharmaceuticals. Then, training to identify the most common pitfalls/variants in $^{68}$Ga-radiolabelled SSTR analogues and $[^{18}F]$DOPA imaging and the most common pathological findings for correct imaging interpretation will be provided. The most typical clinical scenario where the use of $^{68}$Ga-radiolabelled SSTR analogues, $[^{18}F]$DOPA PET/CT and $[^{18}F]$FDG, alone or in combination is indicated will be presented through a case-based discussion. Appropriate criteria for imaging interpretation for disease staging and restaging, patient selection for PRRT as well as for treatment assessment will be provided. At the end of this session we expected attendees understanding the main technical and clinical challenges in PET/CT imaging of NETs’ patients and their own individual needs for further training to actively participate in clinical case discussion within a NETs’ multidisciplinary team.

Key Words
Neuroendocrine tumors, $^{68}$Ga-radiolabelled SSTR analogues PET/CT, $[^{18}F]$DOPA PET/CT, Pitfalls, clinical case discussion