

*Vienna, Austria*

Annual Congress of the  
European Association of Nuclear Medicine  
October 21 –25, 2017  
Vienna, Austria

## **CME 4 (Oncology)**

**Sunday, October 22, 16:30-18:00**

### **Session Title**

**PET in Multiple Myeloma**

### **Chairs**

Michel Meignan (Créteil)

Cristina Nanni (Bologna)

### **Programme**

16:30 - 17:00 Cyrille Touzeau (Nantes): What is Expected from Imaging in Multiple Myeloma (MM)

17:00 - 17:30 Christina Messiou (London): Standard MRI in MM and Perspectives

17:30 - 18:00 Cristina Nanni (Bologna): Role of PET for Initial Evaluation and Response Assessment in Multiple Myeloma: Towards New Imaging Criteria

### **Educational Objectives**

Be able to

- describe the different clinical situations where imaging is required in Multiple Myeloma
- choose in a clinical situation the best imaging techniques for diagnosis and response assessment
- describe the results of the different MRI techniques used in MM
- describe the results obtained by the main prospective studies focused on the value of imaging in MM
- report a PET in MM according to the current imaging criteria

### **Summary**

The role of imaging techniques for MM lymphoma management will be presented with an emphasis on the more recent study comparing the value of PET and MRI: the three prospective studies (US, Italian, French) conducted to assess Minimal residual disease in pre and post Autologous stem cell transplantation and before maintenance and the IMAJEM study comparing the respective values of PET and MRI for response assessment. The role of each technique in different clinical situations will be addressed.

The different magnetic resonance imaging (MRI) techniques that have been used for MM staging will be presented. First of all the standard (MRI), with T1 and T2 images which was

*Vienna, Austria*

Annual Congress of the  
European Association of Nuclear Medicine

October 21 –25, 2017  
Vienna, Austria

integrated in the 1986 Durie & Salmon PLUS classification and giving good visualization of bone marrow (BM) involvement. Second, the whole-body dynamic contrast enhanced-MR (DCE-MR) imaging, thanks to its ability to image the increased angiogenesis in BM induced by the MM clone proved useful to evaluate the treatment response.

The role of PET in the different types of MM will be described at staging and for response evaluation.

The criteria so far reported in the literature for PET scan interpretation in MM will be discussed especially regarding BM infiltration, low focal SUV max, small areas of focal uptake, focal lesions in areas with increased background, recent fractures or vertebral collapse. The results of the harmonization proposed by the Italian and French cooperative groups based on their clinical experience will be presented.

### **Key Words**

Multiple Myeloma, PET, MRI, Response assessment, Deauville criteria