Gran Cancun

Chairman: José Antonio Serna, Ivan Vega

08:30 – 09:00  Pearls and pitfalls in interpretation of abdominal PET/CT  
Antonio Rodríguez

09:00 – 09:30  Technological advances in radioguided surgery and the sentinel node procedure  
Renato Valdés

09:30 – 09:45  Coffee Break / Exhibit hall

Chairman: Erik Mittra, Guillermina Ferro

09:45 – 10:45  Plenary Session II  
Development of perspective radiopharmaceuticals  
Dae Yoon Chi

10:45 – 11:00  Coffee Break / Exhibit hall

Chairman: M. Eftekhari, Lorraine Fig.

11:00 – 11:30  PET/CT in cervix carcinoma  
Ivan Vega

11:30 – 12:00  Sentinel node in gynecology cancers.  
Sergi Vidal Sicart

12:00 – 12:15  Coffee Break / Exhibit hall

Chairman: Abdelhamid Elgazzar, Alicja Hubalewska Dydejczyk

Victor Gerbaudo

Brian Hutton

13:15 – 14:45  Lunch
**Cozumel A**

**Chairman:** Lorraine Fig, Pablo Pichardo

08:30 – 09:00  
Cancer theragnostics with bioactive molecules; from peptides to microbes  
*Jung-Joon Min*

09:00 – 09:30  
11C-acetate. It’s uses in breast, lung and other indications.  
*Osvaldo García*

09:30 – 09:45  
Coffee Break / Exhibit hall

**Chairman:** Andrew Scott, Pablo Ros

09:45 – 10:45  
Plenary Session IV  
Gran Cancun

10:45 – 11:00  
Coffee Break – Exhibit hall

**Chairman:** Ivan Diaz

11:00 – 11:30  
Optimising tomographic reconstruction for nuclear medicine: strategies and limitations.  
*Andrew Todd-Pokropek*

11:30 – 12:00  
The role of Y-90 Microspheres in primary & metastatic liver tumours  
*R V Parameswaran*

12:00 – 12:15  
Coffee Break – Exhibit hall

**Chairman:** B.R. Mittal

12:15 – 12:45  
Molecular Imaging in lung cancer.  
*Jasna Mihailovic*

12:45 – 13:15  
Radionuclide bone pain palliation, experience in Iran  
*M. Eftekhari*

13:15 – 14:45  
Lunch
Radionuclide bone pain palliation, experience in Iran

Mohammad Eftekhari*, Davood Beiki, Arman Hasanzadeh

Research Center for Nuclear Medicine, Tehran University of Medical Sciences, Tehran, Iran

Metastasis related bone pain is one of the most debilitating symptoms in patients with advanced malignancies. It is seen in more than 70% of patients with advanced breast and prostate cancers and more than 30% of advanced lung, bladder and thyroid malignances. Bone metastases can cause complications of various degrees, which can result in pain, hypercalcemia, loss of function after pathologic fractures, and neurologic symptoms from nerve compression that influence the quality of life. Bone pain is the most common type of pain caused by cancer and it can be focal or multifocal, localized or diffuse, light or severely disabling. The management of patients with metastatic bone pain must be a multidisciplinary approach and includes the use of analgesia, radiotherapy, surgery, chemotherapy, hormone treatment, radioisotopes and bisphosphonates. Analgesia, with non-steroidal anti-inflammatory drugs, is the first option in most patients, progressing to stronger opioids as the intensity of pain rises. These drugs produce unwanted side effects such as nausea, sedation, and constipation. Local external radiotherapy or surgery can be used for localized metastatic disease and hemibody radiotherapy might be suitable for patients with disease extending to one region of the body. In patients with widespread painful bone involvement, bone-seeking radiopharmaceuticals provide a promising pain-control strategy. A number of bone seeking agents, such as Strontium-89 (Sr-89), Phosphorus-32 (P-32), Samarium-153 (Sm-153), Lutetium-177 (Lu-177), Rhenium-186 (Re-186) and Rhenium-188 (Re-188) have been tested and employed for this purpose. The response rate to radionuclide therapy has been shown to be 40-95% (average of 70%), depending on the type of radiopharmaceutical administered, underlying cancer, age, number of metastases, and some other determinants. The exact mechanism of radionuclide pain palliation is still to be determined; however, a cytotoxic effect on normal bone cells, inhibiting the release of pain mediators and shrinkage of metastatic lesions leading to a decrease in stimulation of the mechanical pain receptors have been suggested as the possible mechanism of their efficacy. Iran has a history of therapeutic radiopharmaceutical production for more than three decades. In this review, we present our experiences using locally produced radiopharmaceuticals for management of patients with metastatic bone pain.