CTE 4
Technologists Committee
Saturday, October 24, 10:40-12:10

Session Title
NET Imaging and Therapy

Chairperson
Agata Pietrzak (Poznan, Poland)

Programme
10:40 - 11:09  Neva Girotto (Rijeka, Croatia): NET Imaging in Conventional NM - Is There Still a Role for Conventional NM in NET Imaging?
11:09 - 11:38  Witold Cholewinski (Poznan, Poland): PET/CT in NET Tumours - Applications and Novelties
11:38 - 12:07  Piotr Martenka (Poznan, Poland): NET Therapy – Oncologist’s Point of View

Educational Objectives
1. Describe the Neuroendocrine tumors pathophysiologic background and epidemiology
2. Become familiar with the diagnostic management of the NET with special focus on the molecular imaging and novelties in the NET imaging: utility and limitations of each method
3. Understand the possible pitfalls and difficulties in the NET tumors patients diagnostic and therapeutic management
4. Explain the therapeutic management of NET patients, mention the possible options, most common therapeutic protocols and future perspectives
5. Characterize the Head&Neck region NETs as one the most difficult to diagnose and treat NET subsets

Summary
Neuroendocrine tumors (NETs, NENs) are the heterogeneous and rare neoplasms, comprising at approximately 2% of all malignancies. NETs are divided into two main subgroups, considering histology and tumor’s cells proliferation rate, which are the poor and well-differentiated (high grade, low or intermediate grade, respectively). The NETs nomenclature refers to specific characteristics of the neoplasms in the structure of which we can observe dense core granules similar to monoamines stored in the serotonergic neurons and these monoamines synthesis and secretion. NETs affecting the central nervous system, endocrine glands, and diffused endocrine system.

Nuclear medicine methods of imaging are considered highly useful in primary a recurrent NETs diagnosis, as well as, in the targeted therapeutic planning and management. The most commonly used methods in the NETs diagnostic management are 68Ga-DOTA-conjugated peptides, 18F-DOPA imaging and scintigraphy using a labeled somatostatin receptor (SSTR) compounds. Because the appropriate diagnosis of NETs is critical for planning therapy including i.e. radiotherapy, complex and detailed diagnostic management seems to be of value.

Key Words
Neuroendocrine tumors, oncology, positron emission tomography