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threshold value in the nodal staging of the NSCLC, the use of higher lymph node / MBP SUVmax ratio threshold value and other PET / CT variables may increase the diagnostic value of PET / CT. ***References:*** None

EP-126

Role of 18F-FDG PET/CT in the evaluation of reponse to therapy in non-small-cell lung cancer (NSCLC) patientes treated with inmunotherapy (prelimary results)

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Aim/Introduction: The main issue to evaluate response to inmunotherapy with FDG PET/TC in NSCLC patients, are the inflammatory infiltration secondary to this treatment that might also show FDG uptake, hamper reliability of PET signal. We aimed to analyze reponse to inmunotherapy (anti-PD-1/PD-L1) in a sample of NSCLC patients. ***Materials and Methods:*** Retrospective study of 14 NSCLC stages III-IV in immunotherapy treatment. All underwent a baseline 18F-FDG PET/CT (PET1), prior to the start of immunotherapy and another (PET2) during / at the end of it, due to clinical / radiological suspicion of progressionPET analysis was visual and quantitative: SUVmax, SUVlbmy ratio SUVmax / SUVfund. The results of PET1 and PET2 were compared. Patients were classified into local progression and non-local progression. PET findings will correlate with clinical, CT, and histology when available. ***Results:*** Time between the start of treatment and PET2 was 15.4 ± 8.8 months. PET identified 8 patients in local progression (7true positive/1false positive) in 6 patients PET was negative (6 true negative). A reduction in SUVmax of 75.5% ± 12 and a ratio in PET2 SUVmax / SUV background of 1.8 were established as quantitative response criteria. The PET showed a sensitivity 100%, specificity 83%, positive predictive value 87% and negative predictive value 100% in the assessment of the local response. ***Conclusion:*** FDG PET/TC let to evaluate response to inmunotherapy in NSCLC patients . Quantitative analyze might give support when visual analysis show doubts. Prospective long-series studies are needed that can assess the actual role of PET in these patients. ***References:*** None

EP-19

Imaging Clinical Studies -> Oncological Imaging Clinical Study -> Lymphoma

e-Poster Area

EP-127

Added Value of SPECT/CT in the Monitoring and Long-Term Follow-up of Malignant Lymphomas

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Aim/Introduction: Modern hybrid imaging assists monitoring and treatment individualization with PET/CT undoubtedly being the "gold imaging standard" in FDG-avid lymphomas. SPECT/CT evolved later but could offer a lot in oncology, using different tumor-seeking radiopharmaceuticals (TSRP). Compared to PET/CT, there is still much less evidence about the place of improved SPECT/CT imaging in lymphoma. Our aim was to study the added value of SPECT/CT with TSRP 99mTc-MIBI or TF in Hodgkin and Non-Hodgkin lymphomas: diagnostic and staging capacity, predictive role for multi-drug resistance, assessment of cardiotoxicity and as a probable alternative for 18F-FDG-PET/CT. ***Materials and Methods:*** We studied 42 adult (22-77y) patients with proven or suspected lymphoma (16 HL, 23 NHL, 3 undefined) with clinical indication for: primary diagnosis/staging (5 pts), restaging after first-line therapy (33 pts); relapse-restaging (3 pts). Using previous "non-hybrid" experience, we introduced a new one-day protocol including whole-body (WB: base of skull-upper thigh) SPECT/CT tumor-seeking scan followed by myocardial perfusion imaging MPI-Gated-SPECT/CT with only one application of the RP. Overall 71 scans were performed on a Symbia-T16-SPECT/(low-dose) CT in our Clinic of Nuclear medicine during 3 year-period: 45 for tumor imaging and 26 MPI. We checked all nodal and extranodal/organ regions for lymphoma engagement, assessed concordant and discordant SPECT vs CT findings and looked for multidrug resistance and myocardial toxicity. In 2 patients SPECT/CT was compared to a previously done PET/CT without intermittent therapy. ***Results:*** SPECT was concordant to CT in 36 pts. In 9 pts SPECT showed non-viable tumor residues after therapy. Comparing SPECT/CT and PET/CT, one patient was diagnosed with MDR and the other showed totally concordant PET and SPECT viable lymphoma lesions. 9/26 MPI showed pathologic myocardial perfusion and/or kinetics, 8 patients were diagnosed with post-therapeutic cardiotoxicity. ***Conclusion:*** Tumor-seeking SPECT/CT shows significant added value for primary diagnosis and staging in lymphoma patients with very high SPECT vs CT concordance. During restaging/follow up SPECT/CT could confirm clinical remission or relapse