

PET-CT IN ASSESSEMENT OF EXTRANODAL INVOLVEMENT IN NON HODGKIN LYMPHOMA.

***C. Mazilu, Mirela Gherghe, Teodora Cristica,
B. Oprisescu, T. Ciprut, Mihaela Tulica***
PET-CT Departament, Affidea Bucuresti.

Introduction: Lymphomas are the most frequent hematological malignant disorders which implies lymph nodes. Extranodal limfomatous involvement is frequently seen, mainly in non-Hodgkin Malignant Lymphoma (NHL), in correlation with histology subtype and disease staging.

Material and Methods: We will try to present the usefulness of Fusion Imaging Tehnique PET-CT, which combines morphological and functional data, in primary disease staging, interim assessment, end of therapy evaluation and also in long-term follow-up in case of complete remission/suspected recurrence. We will present the main standard accepted diagnosis criteria (Chesson, Deauville, Lugano) which are applied in NHL subtypes presented. PET-CT scan was performed at 60 minutes following iv administration of 3,7-MBq/kg of 18F-FDG, with use of contrast agent when required and when allergic antecedents were missing, with a scan range from tentorium to proximal third of thighs. Scanning protocol was modified in correlation with suspected clinical lesion location (cerebral, cutaneous, cavum). Comparison with other

imaging techniques (mainly CT with iv contrast agent, MRI) were made when this type of scans was performed with maximum 45 days before PET-CT scan.

Results: Extranodal involvement is frequently seen in high-grade and low-grade NHL, in our cases being located mainly in spleen, bone marrow and lungs. Main limits of standard imaging tests, when PET-CT was proved to be superior, were in diffuse infiltrative lymphomatous disease (mainly spleen and bone marrow). Also, we had some cases with normal aspect of bone-CT scan and PET-CT is showing extensive extranodal disease. PET-CT limits are due to extranodal disease location in areas with physiologic F18-FDG uptake, associated infectious pathology and decreased avidity of some histology subtypes.

Conclusions: PET-CT scan is very useful, with use of standard diagnosis criteria, in extranodal involvement in NHL patients, mainly in aggressive forms. Extranodal suspected signs in some NHL types (including follicular, marginal zone, primary cutaneous anaplastic) must be assessed knowing the reduced avidity for 18 F-FDG for this histology subtypes.