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## **COMPARISON BETWEEN FDG PET/CT AND CONTRAST-ENHANCED CT FOR THE EVALUATION OF T-CELL LYMPHOMA PATIENTS**

C. Popescu<sup>2</sup>, M. Kirienko<sup>4</sup>, C. Rusconi<sup>1</sup>, E. Meli<sup>1</sup>, P. Ferro<sup>4</sup>, G. Cusato<sup>4</sup>, A. Vanzulli<sup>3</sup>, C. Rossetti<sup>2</sup>

<sup>1</sup>*Hematology, Niguarda Hospital, Milan, Italy*

<sup>2</sup>*Nuclear Medicine, Niguarda Hospital, Milan, Italy*

<sup>3</sup>*Radiology, Niguarda Hospital, Milan, Italy*

<sup>4</sup>*University Milano-Bicocca, Milan, Italy*

### **BACKGROUND-AIM**

To evaluate the diagnostic utility of PET/CT performed for staging, treatment response assessment and restaging of T-cell non Hodgkin Lymphoma (NHL) by comparison with contrast-enhanced CT (CECT).

### **METHODS**

We analyzed 58 scans (PET/CT + CECT) in 38 T-cell NHL pts; median age 53 years (range: 25-77); 21/38 (55%) females. Twenty-three scans were performed for staging, 29 for therapy response assessment and 6 for restaging. Nineteen pts (50%) had peripheral not otherwise specified, 5 pts (13%) had angioimmunoblastic, 13 pts (34%) had anaplastic T and 1 pt (3%) had nasal-type T-cell NHL. Disease spread, in terms of sites and stage, as assessed by PET/CT and CECT was compared.

### **RESULTS**

At baseline staging, PET/CT was positive in all 23 patients. PET/CT and CECT identified the same disease sites in 1/23 (4.3%) case, while were discordant in 22/23(95.7%) pts. In 6/23 (26.1%) cases PET/CT showed a lower number of disease sites. In 16/23(69.6%) pts PET/CT identified a higher number of disease sites, both nodal and extra-nodal. PET/CT findings led to change the Ann Arbor stage in 12/23 (52.2%) cases, with an up-staging in 11/23 (47.8%). At response assessment, in 21/29 (72.4%) cases PET/CT and CECT showed concordant results: in 14/21(66.7%) showing complete response and in 7/21(33.3%) cases both exams pointed out a partial response. In 8/29(27.6%) cases PET/CT and CECT were discordant; in particular, in 4/8(50%) PET/CT negative cases CECT showed a partial response and in the remaining 4/8(50%) viceversa. At restaging, PET/CT was positive in all the patients (n=6). It was concordant with CECT in 1 pt. PET/CT showed lower number of sites in 1 pt, with no impact on disease stage, and more sites in 4/6 pts leading to upstaging in 1 pt.

### **CONCLUSION**

PET/CT compared to CECT allowed a more accurate staging and after therapy pointed out minimal residual disease in 22% of CECT negative pts and complete remission in 36% of CECT positive pts.