



Figure 1: Changes in coronary flow reserve (CFR) from baseline to acute 82Rb PET. Increases and decreases in CFR are represented with red and green lines, respectively.

plan. In 2 cases acute imaging was not performed due to severe treatment-related side effects.

There were no significant differences between baseline and acute 82Rb PET scans although we did register a non-significant decline in coronary flow reserve (CFR) including 15 patients with a decrease >10% (Figure 1). Cardiac MR revealed a near-significant increase in left ventricular ejection fraction ($p = 0.05$) accompanied by a non-significant increase in left ventricular end-diastolic volume ($p = 0.11$) and a significant increase in stroke volume ($p = 0.02$).

Conclusions: Our results indicate that cardiac imaging may provide acute signs of doxorubicin cardiotoxicity. Here, we demonstrate changes in left ventricular function with cardiac MR. Although 82Rb PET imaging did not show any immediate effect on perfusion parameters after doxorubicin exposure, a subgroup of patients did demonstrate a marked decrease in CFR. In our future studies, we will investigate whether these acute changes translate into an increased risk of myocardial fibrosis and HF at 12 month follow-up.

Keywords: doxorubicin; magnetic resonance imaging (MRI); positron emission tomography (PET)

MANTLE CELL LYMPHOMA

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PROGNOSTIC VALUE OF KI-67, MIPI SCORE AND SUV MAX OF THE PET SCAN: RESULT OF A SINGLE CENTER EXPERIENCE WITH MANTLE-CELL LYMPHOMAS

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Introduction: Mantle cell lymphoma (MCL) is a B-cell non-Hodgkin lymphoma with highly variable behaviors in terms of survival data. Recently, the European Mantle Cell Lymphoma Network reported that the Ki-67 index combined with MIPI allows refining the risk stratification. Beside these 2 complementary prognostic factors, the role of 18-fluorodeoxyglucose (FDG)-positron emission tomography (PET) and primarily the level of maximum standardized uptake value (SUVmax) (hyper metabolic activity) is poorly investigated in the literature.

Population and Methods: We thus retrospectively reviewed 65 MCL patients admitted in our Institute for treatment. Pathological, phenotypical and cytogenetic data were independently reviewed. MIPI scores (according to E. Hoster, BLOOD 2008) and Ki-67 index (according to published guidelines) were calculated. When available, 18-FDG PET/CT scan at diagnosis was reviewed to determine maximal SUV. Patients were then stratified according to the MIPI scores and High, Low and intermediate risk groups were correlated with the maximum SUV. Overall survival was evaluated by Cox regression model.

Results: Fifty-three patients (pts) were evaluable for MIPI score and outcome, Ki-67 index value was available in 30 pts and 24 pts had a PET/CT scan at diagnosis. Median age at diagnosis was 62 (40-85) years old. In the low risk group (MIPI 0-3), median age was 61 (42-77) years old, median overall survival (OS) was 148 Months (Mo), median SUV max was 2.86 (2.0-8.4) and 4% had Ki-67 > 30%. In the intermediate risk group (MIPI, 4-5) median age was 65 (54-79) y.o., median OS was 63 Mo, median SUV max was 6.31 (4.7-10.4) and Ki-67 was >30% in 36% of the pts. In the high-risk group (MIPI 6⁺) median age was 71 (47-85) y.o., median OS was 36 Mo, median SUV max was 8.25 (2.0-15.6) and Ki67 > 30% in 57%. In the "blastoid" MCL group, median age was 58 (40-77) years old median OS was 57 Mo, median SUV max was 13.9 (2.6-23.1) and 40% had Ki67 > 30%. Interestingly before the era of Ibrutinib treatment, Ki-67 index had an independent prognostic value that disappears after treatment with anti-BTK.

Conclusion: Our small series of MCL confirms the prognostic value of MIPI scores (med OS of 148, 63 and 36 months in High, intermediate and Low risks pts respectively) and poor outcome of blastoid histology (med OS 57 mo). The median SUV max value of the initial 18-FDG PET/CT was higher in the high risk and blastoid MCLs and a high SUV seems to correlate with a poor outcome. However, in the era of very effective treatment such as Ibrutinib, these prognostic markers deserves confirmation in wider series.

Keywords: mantle cell lymphoma (MCL); positron emission tomography (PET); prognostic indices

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AUTOLOGOUS STEM CELL TRANSPLANTATION IS INFREQUENTLY UTILIZED BUT ASSOCIATED WITH IMPROVED OVERALL SURVIVAL IN ELDERLY PATIENTS WITH MANTLE CELL LYMPHOMA