Supplementary Material

Prognostic Value of Baseline Radiomic Features of $^{18}$F-FDG PET in Patients with Diffuse Large B-cell Lymphoma

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Table S1. List of $^{18}$F-FDG PET Radiomic Features

| Classes                        | Feature Name                        |
|--------------------------------|-------------------------------------|
| First Order Voxel Statistics   | 10th percentile                     |
|                                | 90th percentile                     |
|                                | Energy                              |
|                                | Entropy                             |
|                                | Interquartile Range                 |
|                                | Kurtosis                            |
|                                | Maximum                             |
|                                | Mean                                |
|                                | Absolute Deviation                  |
|                                | Median                              |
|                                | Minimum                             |
|                                | Range                               |
|                                | Robust Mean Absolute Deviation      |
|                                | Root Mean Squared                   |
|                                | Skewness                            |
| Gray Level Co-occurrence Matrix (GLCM) | Total Energy |
|----------------------------------------|--------------|
|                                        | Uniformity   |
|                                        | Variance     |
|                                        | Metabolic Tumor Volume |
| Gray Level Co-occurrence Matrix (GLCM) | Autocorrelation |
|                                        | Cluster Prominence |
|                                        | Cluster Shade |
|                                        | Cluster Tendency |
|                                        | Contrast |
|                                        | Correlation |
|                                        | Difference Average |
|                                        | Difference Entropy |
|                                        | Difference Variance |
|                                        | Inverse Difference |
|                                        | Inverse Difference Moment |
|                                        | Inverse Difference Moment Normalized |
|                                        | Inverse Difference Normalized |
|                                        | Informational Measure of Correlation 1 |
|                                        | Informational Measure of Correlation 2 |
|                                        | Inverse Variance |
|                                        | Joint Average |
|                                        | Joint Energy |
|                                        | Joint Entropy |
|                                        | Maximal Correlation Coefficient |
|                                        | Maximum Probability |
|                                        | Sum Average |
|                                        | Sum Entropy |
|                                        | Sum Squares |

| Gray Level Run Length Matrix (GLRLM) | Gray Level Non-Uniformity |
|-------------------------------------|---------------------------|
|                                     | Gray Level Non-Uniformity Normalized |
|                                     | Gray Level Variance |
|                                     | High Gray Level Run Emphasis |
|                                     | Long Run Emphasis |
|                                     | Long Run High Gray Level Emphasis |
|                                     | Long Run Low Gray Level Emphasis |
|                                     | Low Gray Level Run Emphasis |
|                                     | Run Entropy |
| Gray Level Size Zone Matrix (GLSZM) | Gray Level Non-Uniformity |
|------------------------------------|---------------------------|
|                                    | Gray Level Non-Uniformity Normalized |
|                                    | Gray Level Variance |
|                                    | High Gray Level Zone Emphasis |
|                                    | Large Area Emphasis |
|                                    | Large Area High Gray Level Emphasis |
|                                    | Large Area Low Gray Level Emphasis |
|                                    | Low Gray Level Zone Emphasis |
|                                    | Size Zone Non-Uniformity |
|                                    | Size Zone Non-Uniformity Normalized |
|                                    | Small Area Emphasis |
|                                    | Small Area High Gray Level Emphasis |
|                                    | Small Area Low Gray Level Emphasis |
|                                    | Zone Entropy |
|                                    | Zone Percentage |
|                                    | Zone Variance |

| Neighboring Gray Tone Difference Matrix (NGTDM) | Busyness |
|                                              | Coarseness |
|                                              | Complexity |
|                                              | Contrast |
|                                              | Strength |

The future explanations are available at https://pyradiomics.readthedocs.io/
| Classes                                      | Feature Name                              |
|----------------------------------------------|-------------------------------------------|
| First Order Voxel Statistics                 | Metabolic Tumor Volume                    |
| Gray Level Co-occurrence Matrix (GLCM)       | Cluster Prominence                        |
|                                              | Cluster Tendency                           |
|                                              | Inverse Difference                        |
|                                              | Inverse Difference Moment                 |
|                                              | Inverse Variance                          |
|                                              | Sum Squares                               |
| Gray Level Run Length Matrix (GLRLM)         | Gray Level Non-Uniformity                 |
|                                              | Long Run High Gray Level Emphasis         |
|                                              | Run Length Non-Uniformity                 |
|                                              | Run Percentage                            |
|                                              | Short Run Emphasis                        |
Figure S1. Radiomic feature selection using the Least Absolute Shrinkage and Selection Operator (LASSO) regression with five-fold cross-validation. The optimal Lambda value was identified by the minimum mean-squared error (MSE) and by the minimum MSE within one standard error. Feature selection and coefficient profiles for the prediction of progression-free survival (a, c) and overall survival (b, d).