**Supplemental Materials**

**Appendices E1**

**Table E1 Radiomics features**

|  |  |
| --- | --- |
| ShapeN=13 | Maximum 3D Diameter |
| Maximum 2D Diameter Slice |
| Sphericity |
| Minor Axis |
| Elongation |
| Surface Volume Ratio |
| Volume |
| Major Axis |
| Surface Area |
| Flatness |
| Least Axis |
| Maximum 2D Diameter Column |
| Maximum 2D Diameter Row |
| First OrderN=18 | Interquartile Range |
| Skewness |
| Uniformity |
| Median |
| Energy |
| Robust Mean Absolute Deviation |
| Mean Absolute Deviation |
| Total Energy |
| Maximum |
| Root Mean Squared |
| 90 Percentile |
| Minimum |
| Entropy |
| Range |
| Variance |
| 10 Percentile |
| Kurtosis |
| Mean |
| Gray-Level Co-occurrence Matrix (GLCM)N=24 | Joint Average |
| Sum Average |
| Joint Entropy |
| Cluster Shade |
| Maximum Probability |
| Idmn |
| Joint Energy |
| Contrast |
| Difference Entropy |
| Inverse Variance |
| Difference Variance |
| Idn |
| Idm |
| Correlation |
| Autocorrelation |
| Sum Entropy |
| MCC |
| Sum Squares |
| Cluster Prominence |
| Imc2 |
| Imc1 |
| Difference Average |
| Id |
| Cluster Tendency |
| [Gray Level Dependence Matrix](http://www.baidu.com/link?url=QjYOXFFA_QvJVTK2pUEgbJgaze4zSOUA4fLjdTOALgjlYXlplmIe_U4DNN7dM1sPXrn-UQXYkEej2mS_lDy_w42t3q-VbT5ygijkalc4HDOuWw3ZQHLIA_QihP77GEAd) (GLDM)N=14 | Gray Level Variance |
| High Gray Level Emphasis |
| Dependence Entropy |
| Dependence Non Uniformity |
| Gray Level Non Uniformity |
| Small Dependence Emphasis |
| Small Dependence High Gray Level Emphasis |
| Dependence Non Uniformity Normalized |
| Large Dependence Emphasis |
| Large Dependence Low Gray Level Emphasis |
| Dependence Variance |
| Large Dependence High Gray Level Emphasis |
| Small Dependence Low Gray Level Emphasis |
| Low Gray Level Emphasis |
| Gray-Level Run-Length Matrix (GLRLM)N=16 | Short Run Low Gray Level Emphasis |
| Gray Level Variance |
| Low Gray Level Run Emphasis |
| Gray Level Non Uniformity Normalized |
| Run Variance |
| Gray Level Non Uniformity |
| Long Run Emphasis |
| Short Run High Gray Level Emphasis |
| Run Length Non Uniformity |
| Short Run Emphasis |
| Long Run High Gray Level Emphasis |
| Run Percentage |
| Long Run Low Gray Level Emphasis |
| Run Entropy |
| High Gray Level Run Emphasis |
| Run Length Non Uniformity Normalized |
| Grey-Level Size-Zone Matrix (GLSZM)N=16 | Gray Level Variance |
| Zone Variance |
| Gray Level Non Uniformity Normalized |
| Size Zone Non Uniformity Normalized |
| Size Zone Non Uniformity |
| Gray Level Non Uniformity |
| Large Area Emphasis |
| Small Area High Gray Level Emphasis |
| Zone Percentage |
| Large Area Low Gray Level Emphasis |
| Large Area High Gray Level Emphasis |
| High Gray Level Zone Emphasis |
| Small Area Emphasis |
| Low Gray Level Zone Emphasis |
| Zone Entropy |
| Small Area Low Gray Level Emphasis |
| Neighborhood Gray Tone Difference Matrix (NGTDM)N=5 | Coarseness |
| Complexity |
| Strength |
| Contrast |
| Busyness |

**Table E2 Radiologist information**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Reads per year(cases)** | **Experience(years)** | **Reads on ABE(cases)** |
| **Radiologist 1** | 1500-2500 | 15 | 150-250 |
| **Radiologist 2** | 2500-3000 | 20 | 200-300 |
| **Radiologist 3** | 3000-3500 | 25 | 300-400 |

Note.—ABE = acute bilirubin encephalopathy.

**Table E3 Detailed description of texture features included in radiomics model**

|  |  |
| --- | --- |
| **Texture feature** | **Description** |
| Run Entropy | Describe the disorder of run length, indicates the non-uniformity of texture in the image. |
| Correlation | Describe the similarity of gray level, reflects the local gray level correlation in the image. |
| Small Area Low Gray Emphasis | Describe the distribution of small connected and low gray level areas, indicative of finer textures and dark image. |
| Informational Measure of Correlation-1(Imc1) | Describe the correlation between the probability distributions using mutual information. |
| Gray Level Non Uniformity | Describe the non-uniformity of gray level in the image. |
| Inverse Difference Moment Normalized (Idmn) | Describe the variability of gray level in the image. |

**Figure E1**

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**Figure E1** The coefficients of the radiomics features in the multivariate logistic regression analysis of the radiomics model.

**Figure E2**

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**Figure E2** ROC curves for the radiologist 1, radiologist 2 and radiologist’ final visual diagnosis.