|  |  |  |
| --- | --- | --- |
| Patient | Cluster | value |
| 1 | 1 | 0.427 |
| 2 | 1 | 0.289 |
| 3 | 2 | 0.029 |
| 4 | 1 | 0.363 |
| 5 | 2 | -0.456 |
| 6 | 1 | 0.431 |
| 7 | 2 | -0.232 |
| 8 | 1 | 0.287 |
| 9 | 1 | 0.605 |
| 10 | 1 | 0.548 |
| 11 | 1 | 0.636 |
| 12 | 1 | 0.422 |
| 13 | 1 | 0.529 |
| 14 | 1 | 0.413 |
| 15 | 1 | 0.376 |
| 16 | 1 | 0.228 |
| 17 | 1 | 0.500 |
| 18 | 1 | 0.789 |

|  | | Cluster | | |
| --- | --- | --- | --- | --- |
| Characteristic | N = 181 | 1, N = 151 | 2, N = 31 | p-value2 |
| **Age** | 61 (7) | 59 (7) | 68 (5) | 0.057 |
| **cluster** |  |  |  |  |
| 1 | 15 (83%) |  |  |  |
| 2 | 3 (17%) |  |  |  |
| **Smoking** | 15 (22) | 12 (17) | 30 (40) | 0.2 |
| **Sex** |  |  |  | >0.9 |
| F | 2 (11%) | 2 (13%) | 0 (0%) |  |
| M | 16 (89%) | 13 (87%) | 3 (100%) |  |
| **Tumor.site** |  |  |  | >0.9 |
| BOT | 9 (50%) | 7 (47%) | 2 (67%) |  |
| Tonsil | 9 (50%) | 8 (53%) | 1 (33%) |  |
| **Risk.grouping** |  |  |  | 0.2 |
| Intermediate | 11 (61%) | 8 (53%) | 3 (100%) |  |
| Low | 7 (39%) | 7 (47%) | 0 (0%) |  |
| **Tumor.Volume..mL.** | 0.43 (0.26) | 0.46 (0.26) | 0.28 (0.25) | 0.3 |
| Unknown | 1 | 1 | 0 |  |
| **Largest.Node.Volume..mL.** | 0.20 (0.31) | 0.22 (0.33) | 0.07 (0.18) | 0.5 |
| **SULmax.Tumor** | 0.31 (0.21) | 0.36 (0.18) | 0.09 (0.19) | **0.037** |
| Unknown | 2 | 2 | 0 |  |
| **SULmedian** | 0.31 (0.26) | 0.31 (0.28) | 0.31 (0.21) | >0.9 |
| Unknown | 2 | 2 | 0 |  |
| **SULpeak** | 0.36 (0.19) | 0.40 (0.17) | 0.17 (0.21) | 0.066 |
| Unknown | 2 | 2 | 0 |  |
| **SULmax.Largest.Node** | 0.34 (0.30) | 0.46 (0.15) | -0.22 (0.24) | **<0.001** |
| **SULmedian.node** | 0.38 (0.18) | 0.40 (0.18) | 0.25 (0.16) | 0.2 |
| **SULpeak.node** | 0.36 (0.24) | 0.43 (0.15) | 0.00 (0.29) | **0.001** |
| **Diffusion.Mean.Tumor** | -0.39 (0.36) | -0.35 (0.28) | -0.59 (0.65) | 0.3 |
| Unknown | 2 | 2 | 0 |  |
| **Diffusion.mean.ADC.Largest.Node** | -0.31 (0.29) | -0.30 (0.30) | -0.38 (0.26) | 0.7 |
| Unknown | 1 | 1 | 0 |  |
| 1Mean (SD); n (%) | | | | |
| 2One-way ANOVA; Fisher's exact test | | | | |

|  | First scan | | | Change in Scan | | |
| --- | --- | --- | --- | --- | --- | --- |
| Characteristic | Intermediate, N = 111 | Low, N = 71 | p-value2 | Intermediate, N = 111 | Low, N = 71 | p-value2 |
| **Tumor.Volume..mL.** | 9.6 (6.8) | 8.5 (6.0) | 0.7 | 0.41 (0.29) | 0.46 (0.22) | 0.7 |
| Unknown | 0 | 1 |  | 0 | 1 |  |
| **Largest.Node.Volume..mL.** | 7.7 (5.1) | 11.1 (6.1) | 0.2 | 0.09 (0.30) | 0.37 (0.27) | 0.073 |
| **SULmax.Tumor** | 16.3 (7.0) | 14.0 (5.3) | 0.5 | 0.27 (0.20) | 0.39 (0.22) | 0.3 |
| Unknown | 0 | 1 |  | 1 | 1 |  |
| **SULmedian** | 8.72 (3.83) | 7.85 (3.32) | 0.6 | 0.26 (0.26) | 0.39 (0.27) | 0.4 |
| Unknown | 0 | 1 |  | 1 | 1 |  |
| **SULpeak** | 13.0 (5.4) | 11.4 (4.6) | 0.5 | 0.32 (0.17) | 0.42 (0.23) | 0.3 |
| Unknown | 0 | 1 |  | 1 | 1 |  |
| **SULmax.Largest.Node** | 10.5 (4.7) | 12.7 (5.0) | 0.3 | 0.22 (0.33) | 0.53 (0.13) | **0.033** |
| **SULmedian.node** | 6.12 (2.87) | 5.87 (3.07) | 0.9 | 0.36 (0.13) | 0.41 (0.25) | 0.6 |
| **SULpeak.node** | 8.4 (4.3) | 9.5 (4.2) | 0.6 | 0.28 (0.24) | 0.49 (0.17) | 0.055 |
| **Diffusion.Mean.Tumor** | 1,117 (224) | 1,306 (243) | 0.13 | -0.47 (0.42) | -0.26 (0.16) | 0.3 |
| Unknown | 0 | 1 |  | 1 | 1 |  |
| **Diffusion.mean.ADC.Largest.Node** | 1,207 (230) | 1,208 (230) | >0.9 | -0.30 (0.31) | -0.35 (0.28) | 0.7 |
| Unknown | 0 | 1 |  | 0 | 1 |  |
| 1Mean (SD) | | | | | | |
| 2One-way ANOVA | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tumor Volume (mL) | Largest Node Volume (mL) | SULmax Tumor | SULmedian | SULpeak | SULmax Largest Node | SULmedian node | SULpeak node | Diffusion Mean Tumor | Diffusion mean ADC Largest Node |
| 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 |
| 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 |
| 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 |
| 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 |
| 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 |
| 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 |
| 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 |
| 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 |
| 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 |
| 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |
| 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |