**Table S2 *P*-values of comparisons for AUC of tumor markers and diagnostic models in diagnosing liver cancers (HCC and CCA)#♦.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Marker/model** | **GALAD-C** | **GAAP** | **GALAD** | **ASAP** | **C-GALAD** | **C-GALAD Ⅱ** | **PIVKA-Ⅱ** | **AFP-L3%** | **CEA** | **CA19-9** |
| GALAD-C | - | - | - | - | - | - | - | - | - | - |
| GAAP | 0.5993 | - | - | - | - | - | - | - | - | - |
| GALAD | 0.3786 | 0.4498 | - | - | - | - | - | - | - | - |
| ASAP | 0.2837 | 0.3113 | 0.9238 | - | - | - | - | - | - | - |
| C-GALAD | 0.2134 | 0.2392 | 0.6303 | 0.3713 | - | - | - | - | - | - |
| C-GALAD Ⅱ | 0.0001\* | 0.0002\* | 0.0004\* | 0.0030\* | 0.0065\* | - | - | - | - | - |
| PIVKA-Ⅱ | < 0.0001\* | < 0.0001\* | 0.0002\* | < 0.0001\* | < 0.0001\* | 0.5047 | - | - | - | - |
| AFP-L3% | < 0.0001\* | < 0.0001\* | < 0.0001\* | < 0.0001\* | < 0.0001\* | 0.0131\* | 0.0742 | - | - | - |
| CEA | < 0.0001\* | < 0.0001\* | < 0.0001\* | < 0.0001\* | < 0.0001\* | 0.0001\* | 0.0013\* | 0.0372\* | - | - |
| CA19-9 | < 0.0001\* | < 0.0001\* | < 0.0001\* | < 0.0001\* | < 0.0001\* | 0.0001\* | 0.0005\* | 0.0109\* | 0.8119 | - |

**Notes.**

#Comparisons were conducted by DeLong tests.

♦Diagnosing liver cancers (HCC and CCA) and benign liver diseases.

 \*Significant difference.

AUC: area under receiver operating characteristic (ROC) curve; HCC: hepatocellular carcinoma; CCA: cholangiocarcinoma; PIVKA-Ⅱ: protein induced by vitamin K absence or antagonist-Ⅱ; AFP: alpha fetoprotein; AFP-L3%: percentage of AFP-L3 (culinaris agglutinin strong binding) to total AFP; CEA: carcinoembryonic antigen; CA19-9: carbohydrate antigen 19-9.