**Supplemental material:**

**Supplemental table 1: Differences in selected amino acids**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Biochemical Name** | **Portal vein vs RA pre-TIPS** | | | **RA post- vs RA pre-TIPS** | | | **RA pre-TIPS vs healthy controls** | | |
|  | **Fold Change** | **P value** | **Q value** | **Fold Change** | **P value** | **Q value** | **Fold Change** | **P value** | **Q value** |
| **Phenyllactate** | 0.93 | 0.98 | 0.77 | 0.84 | 0.24 | 0.28 | 5.66 | 1.76E-06 | 9.76E-06 |
| **Phenylacetate** | 1.18 | 0.35 | 0.52 | 1.09 | 0.94 | 0.61 | 4.14 | 0.0003 | 0.0008 |
| **4-hydroxyphenylacetate** | 1.03 | 0.89 | 0.75 | 0.93 | 0.0498 | 0.11 | 6.08 | 2.01E-06 | 1.07E-05 |
| **3-(4-hydroxyphenyl) lactate** | 1.04 | 0.56 | 0.62 | 1.1 | 0.047 | 0.11 | 3.41 | 8.76E-08 | 9.27E-07 |
| **p-cresol-glucuronide** | 1.06 | 0.02 | 0.18 | 1.13 | 0.03 | 0.09 | 4.62 | 0.4 | 0.25 |
| **3-indoxyl sulfate** | 1 | 0.84 | 0.74 | 0.93 | 0.009 | 0.04 | 1.07 | 0.27 | 0.18 |
| **Indoleacetylglutamine** | 1.02 | 0.39 | 0.54 | 1.08 | 0.11 | 0.18 | 4.2 | 0.04 | 0.04 |

**Abbreviations:** HCV: hepatitis C virus, ETOH: alcoholic, NASH: non-alcoholic steatohepatitis, RA: right atrial, RV: right ventricular, RVSP: right ventricular systolic pressure (estimated by echocardiogram), TIPS: Transjugular intrahepatic portosystemic shunt