**S2 Table. Plasma Platelet-activating factor, Acylethanolamine, Thyroid hormone, Cholic acids, Steroids Levels in Neurodegenerative Diseases.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| cohort A |  |  | cohort B |  |  | cohort B |  |  |
| PD vs CN |  |  | DLB vs CN |  |  | AD vs CN |  |  |
|  | ratio | p value |  | ratio | p value |  | ratio | p value |
| **PAF** | 1 | 0.6096  | **PAF** | 0.9 | **0.0013**  | **PAF** | 1 | 0.6249  |
| **acylethanolamine** | 1 | 0.5446  | **acylethanolamine** | 0.9 | 0.2251  | **acylethanolamine** | 0.9 | 0.2774  |
| **thyroid hormone** |  |  | **thyroid hormone** |  |  | **thyroid hormone** |  |  |
| thyroxine | 1.1 | **0.0222**  | thyroxine | 1.1 | 0.0514  | thyroxine | 1.3 | **0.0009**  |
| triiodothyronine | 1 | 0.6214  | triiodothyronine | 0.9 | 0.0681  | triiodothyronine | 1.2 | 0.1464  |
| **cholic acids** |  |  | **cholic acids** |  |  | **cholic acids** |  |  |
| ursodeoxycholic acid | 0.6 | 0.0826  | ursodeoxycholic acid | 1.4 | 0.2270  | ursodeoxycholic acid | 0.8 | 0.2251  |
| chenodeoxycholic acid | 0.8 | 0.6877  | chenodeoxycholic acid | 1.6 | 0.2008  | chenodeoxycholic acid | 1 | 0.5052  |
| cholic acid | 0.3 | 0.0508  | cholic acid | 1 | 0.5223  | cholic acid | 0.7 | 0.3086  |
| deoxycholic acid | 0.8 | 0.2792  | deoxycholic acid | 1.3 | 0.2218  | deoxycholic acid | 1 | 0.4672  |
| lithocholic acid | 0.7 | 0.0756  | lithocholic acid | 1.1 | 0.6199  | lithocholic acid | 0.6 | 0.1386  |
| **steroids** |  |  | **steroids** |  |  | **steroids** |  |  |
| corticosterone | 1.2 | 0.1974  | corticosterone | 1.2 | 0.1394  | corticosterone | 1.2 | 0.1417  |
| cortisol | 1.1 | 0.0854  | cortisol | 1.2 | 0.0521  | cortisol | 1.3 | **0.0051**  |
| cortisone | 1.2 | **0.0054**  | cortisone | 1 | 0.3228  | cortisone | 1 | 0.6957  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| cohort C |  |  | cohort C |  |  | cohort C |  |  |
| PD vs CN |  |  | PSP vs CN |  |  | MSA vs CN |  |  |
|  | ratio | p value |  | ratio | p value |  | ratio | p value |
| **PAF** | 0.9 | **0.0061**  | **PAF** | 0.8 | 0.0036  | **PAF** | 0.8 | **0.0019**  |
| **acylethanolamine** | 0.6 | 0.1959  | **acylethanolamine** | 0.6 | 0.1917  | **acylethanolamine** | 0.6 | 0.2118  |
| **thyroid hormone** |  |  | **thyroid hormone** |  |  | **thyroid hormone** |  |  |
| thyroxine | 1.3 | **0.0074**  | thyroxine | 1.2 | **0.0135**  | thyroxine | 1.2 | **0.0240**  |
| triiodothyronine | 1.2 | 0.2475  | triiodothyronine | 1.1 | 0.4140  | triiodothyronine | 0.9 | 0.3577  |
| **cholic acids** |  |  | **cholic acids** |  |  | **cholic acids** |  |  |
| ursodeoxycholic acid | 0.4 | 0.0651  | ursodeoxycholic acid | 5.8 | 0.1491  | ursodeoxycholic acid | 0.4 | 0.0746  |
| chenodeoxycholic acid | 0.9 | 0.5749  | chenodeoxycholic acid | 1.6 | 0.2746  | chenodeoxycholic acid | 0.2 | 0.1051  |
| cholic acid | 0.6 | 0.3441  | cholic acid | 1.3 | 0.3896  | cholic acid | 0.2 | 0.2015  |
| deoxycholic acid | 0.8 | 0.6290  | deoxycholic acid | 1 | 0.5139  | deoxycholic acid | 0.5 | 0.1928  |
| lithocholic acid | 0.6 | 0.2232  | lithocholic acid | 0.5 | 0.1522  | lithocholic acid | 0.5 | 0.1422  |
| **steroids** |  |  | **steroids** |  |  | **steroids** |  |  |
| Corticosterone | 1 | 0.4586  | Corticosterone | 1.2 | 0.3038  | Corticosterone | 0.9 | 0.6421  |
| Cortisol | 1.2 | 0.1064  | Cortisol | 1.3 | **0.0143**  | Cortisol | 1.2 | 0.1288  |
| Cortisone | 1.2 | **0.0295**  | Cortisone | 1.2 | **0.0490**  | Cortisone | 1.3 | **0.0295**  |

Statistical methods: The metabolite level ratio of IPD, DLB, MSA, AD, or PSP to CNs. Statistical significance was examined using one-tailed Welch's t tests (P < 0.05).

Abbreviations: platelet-activating factor (PAF)