

**Supplementary Table 4. Comparison of urine metabolite concentration between RCVS patients with or without migraine**

| <b>Metabolites, mean <math>\pm</math> SD (<math>\mu\text{g/dL}</math>)</b> | <b>RCVS with migraine<br/>(N = 12)</b> | <b>RCVS without migraine<br/>(N = 45)</b> | <b><i>p</i> value</b> |
|----------------------------------------------------------------------------|----------------------------------------|-------------------------------------------|-----------------------|
| <b>Ascorbic acid</b>                                                       | 563.4 $\pm$ 550.5                      | 440.3 $\pm$ 446.8                         | 0.447                 |
| <b>Citrate</b>                                                             | 21842.0 $\pm$ 19937.9                  | 25700.8 $\pm$ 19894.3                     | 0.573                 |
| <b>D-glucurono-6,3-lactone</b>                                             | 7.4 $\pm$ 15.9                         | 9.8 $\pm$ 15.3                            | 0.644                 |
| <b>D-<i>threo</i>-isocitric acid</b>                                       | 5997.9 $\pm$ 6119.5                    | 6496.2 $\pm$ 6063.6                       | 0.811                 |
| <b>Hippurate</b>                                                           | 292.0 $\pm$ 269.2                      | 281.7 $\pm$ 211.8                         | 0.894                 |
| <b>1,3,7-trimethyluric acid</b>                                            | 90.4 $\pm$ 64.2                        | 72.5 $\pm$ 48.3                           | 0.317                 |