Table S1. Test of normality based on the Shapiro-Wilk approach

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Grouping\* | Statistic | df | Sig. |
| Age | 1 | 0.978 | 49 | 0.497  |
| 2 | 0.944 | 38 | 0.055  |
| 3 | 0.964 | 14 | 0.794  |
| Height | 1 | 0.981 | 49 | 0.587  |
| 2 | 0.947 | 38 | 0.070  |
| 3 | 0.824 | 14 | 0.010  |
| Weight | 1 | 0.975 | 49 | 0.367  |
| 2 | 0.958 | 38 | 0.159  |
| 3 | 0.942 | 14 | 0.441  |
| BMI | 1 | 0.953 | 49 | 0.051  |
| 2 | 0.975 | 38 | 0.532  |
| 3 | 0.956 | 14 | 0.662  |
| T1S | 1 | 0.965 | 49 | 0.149  |
| 2 | 0.978 | 38 | 0.652  |
| 3 | 0.95 | 14 | 0.564  |
| TK | 1 | 0.989 | 49 | 0.935  |
| 2 | 0.951 | 38 | 0.093  |
| 3 | 0.905 | 14 | 0.135  |
| LL | 1 | 0.974 | 49 | 0.350  |
| 2 | 0.984 | 38 | 0.849  |
| 3 | 0.939 | 14 | 0.410  |
| SS | 1 | 0.98 | 49 | 0.564  |
| 2 | 0.981 | 38 | 0.751  |
| 3 | 0.962 | 14 | 0.749  |
| PT | 1 | 0.969 | 49 | 0.215  |
| 2 | 0.968 | 38 | 0.340  |
| 3 | 0.968 | 14 | 0.849  |
| PI | 1 | 0.983 | 49 | 0.713  |
| 2 | 0.957 | 38 | 0.152  |
| 3 | 0.926 | 14 | 0.267  |
| SVA | 1 | 0.979 | 49 | 0.510  |
| 2 | 0.972 | 38 | 0.455  |
| 3 | 0.951 | 14 | 0.573  |
| SLL | 1 | 0.99 | 49 | 0.957  |
| 2 | 0.959 | 38 | 0.173  |
| 3 | 0.924 | 14 | 0.250  |
| SP | 1 | 0.979 | 49 | 0.520  |
| 2 | 0.967 | 38 | 0.310  |
| 3 | 0.947 | 14 | 0.522  |
| PT/PI | 1 | 0.983 | 49 | 0.694  |
| 2 | 0.973 | 38 | 0.474  |
| 3 | 0.889 | 14 | 0.079  |
| ODI | 1 | 0.979 | 49 | 0.526  |
| 2 | 0.952 | 38 | 0.100  |
| 3 | 0.91 | 14 | 0.157  |
| VAS-Back pain | 1 | 0.873 | 49 | 0.000  |
| 2 | 0.927 | 38 | 0.016  |
| 3 | 0.9 | 14 | 0.111  |
| VAS-Leg pain | 1 | 0.939 | 49 | 0.013  |
| 2 | 0.933 | 38 | 0.026  |
| 3 | 0.882 | 14 | 0.063  |
| JOA score | 1 | 0.849 | 49 | 0.000  |
| 2 | 0.918 | 38 | 0.009  |
| 3 | 0.892 | 14 | 0.087  |

BMI, body mass index; T1S, T1 slope; TK, thoracic kyphosis; LL, lumbar lordosis; SS, sacral slope; PT, pelvic tilt; PI, pelvic incidence; SVA, sagittal vertical axis; SLL, segmental lumbar lordosis; SP, slip percentage; PT/PI, the ratio of PT to PI; ODI, Oswestry disability index; VAS, visual analogue scale; JOA, Japanese Orthopedic Association.

\*Group 1 indicated the balance group; Group 2 indicated the local coronal imbalance group; Group 3 indicated the global coronal imbalance group.