**Table 1 Comparison of the baseline characteristics of the post-TIPS patients**

**between the control and intervention groups.**

| **Variable** | **Intervention group(n=161)** | **Control group(n=179)** | ***t*/χ2 value** | ***p* value** |
| --- | --- | --- | --- | --- |
| **Sex** |  |  | 0.038 | 0.846 |
| Male | 127 | 136 |
| Female | 34 | 43 |
| **Age** |  |  | 0.032 | 0.858 |
| Under the age of 35 | 10 | 12 |
| 35~45 | 27 | 26 |
| 46~55 | 38 | 42 |
| 56~65 | 26 | 34 |
| Older than 65 | 26 | 31 |
| **Education (highest**  **qualification)** |  |  | 0.283 | 0.595 |
| Illiterate | 24 | 26 |
| Primary school | 26 | 33 |
| Junior high school | 58 | 57 |
| High school or technical secondary school | 38 | 44 |
| University and above | 15 | 19 |
| **Occupation** |  |  | 0.020 | 0.888 |
| Unemployed | 7 | 9 |
| Farmers | 32 | 37 |
| Workers | 29 | 24 |
| Professional technical personnel | 11 | 11 |
| Other | 82 | 98 |
| **Number of children** |  |  | 1.051 | 0.306 |
| 1 | 85 | 109 |
| 2-3 | 42 | 35 |
| More than 3 | 23 | 25 |
| None | 11 | 10 |
| **Income** |  |  | 0.519 | 0.472 |
| None | 10 | 18 |
| Less than 2000 yuan | 43 | 37 |
| 2000-3000 yuan | 32 | 35 |
| 3000-4000 yuan | 33 | 38 |
| 4000-5000 yuan | 18 | 24 |
| Above 5000 yuan | 25 | 27 |
| **Etiology** |  |  | 1.420 | 0.234 |
| Cirrhosis | 78 | 89 |
| Upper GI bleeding | 41 | 53 |
| Hepatic malignant tumors | 27 | 17 |
| Esophageal and gastric varices | 9 | 11 |
| Budd-Chiari syndrome | 4 | 2 |
| Other | 2 | 7 |
| **Child-Pugh score post-TIPS** | 8.5±0.76 | 8.75±1.48 | 0.191 | 0.667 |
| **Blood ammonia** | 9.93±3.36 | 9.22±2.20 | 0.715 | 0.480 |

**Table 2 Basic medical compliance in the post-TIPS patients between the** **control and intervention groups.**

| Item/Group | 1 month post-TIPS | 3 months post-TIPS | 6 months post-TIPS | 9 months post-TIPS | 12 months post-TIPS |
| --- | --- | --- | --- | --- | --- |
| **Medication compliance** |  |  |  |  |  |
| Control group | 1.01±0.1 | 1 | 1.01±0.09 | 1.01±0.09 | 1 |
| Intervention group | 1.45±0.58 | 1.86±0.57 | 2.19±0.66 | 2.31±0.68 | 2.28±0.72 |
| **Diet control** |  |  |  |  |  |
| Control group | 1.70±0.82 | 1.70±0.77 | 1.73±0.52 | 1.73±0.46 | 1.74±0.82 |
| Intervention group | 2.07±0.82 | 2.65±0.56 | 2.66±0.78 | 2.67±0.23 | 2.67±0.72 |
| **Regular work and rest** |  |  |  |  |  |
| Control group | 1.17±0.65 | 1.18±0.78 | 1.19±0.25 | 1.21±0.62 | 2.20±0.11 |
| Intervention group | 1.22±0.75 | 2.46±0.64 | 2.48±0.83 | 2.49±0.56 | 2.51±0.13 |
| **Moderate exercise** |  |  |  |  |  |
| Control group | 1.03±0.72 | 1.11±0.69 | 2.10±0.18 | 2.14±0.54 | 2.15±0.21 |
| Intervention group | 2.15±0.66 | 2.31±0.79 | 2.38±0.62 | 2.42±0.87 | 2.43±0.24 |
| **Emotion regulation** |  |  |  |  |  |
| Control group | 1.59±0.57 | 1.56±0.57 | 1.59±0.62 | 1.61±0.28 | 1.63±0.38 |
| Intervention group | 1.8±0.66 | 2.0±0.63 | 2.3±0.43 | 2.35±0.58 | 2.42±0.65 |
| **Regular follow-up** |  |  |  |  |  |
| Control group | 1.33±1.03 | 1.22±1.31 | 1.28±0.81 | 1.30±2.35 | 1.32±1.94 |
| Intervention group | 1.57±1.28 | 1.95±1.98 | 2.02±0.56 | 3.45±1.33 | 3.69±1.76 |

**Table 3 Comparison of Child-Pugh scores、blood ammonia levels and compliance behavior scores between the control and intervention groups**

‾X±s

| **Group/Time** | **Child-Pugh scores** | ***t* value** | ***p* value** | **Blood ammonia level** | ***t* value** | ***p* value** | **Compliance behavior scores** | ***t* value** | ***p* value** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1 month post-TIPS** |  | -19.38 | 0.047 |  | -1.322 | 0.56 |  | 22.06 | ＜0.001 |
| Control group | 9.31±1.23 | 44.18±30.44 | 7.09±0.48 |
| Intervention group | 5.81±1.66 | 39.61±24.11 | 9.63±0.84 |
| **3 months post-TIPS** |  | -19.49 | ＜0.001 |  | -0.94 | 0.61 |  | 33.05 | ＜0.001 |
| Control group | 9.4±1.08 | 40.50±24.46 | 7.17±0.47 |
| Intervention group | 5.87±1.78 | 37.32±29.62 | 12.96±0.85 |
| **6 months post-TIPS** |  | -18.62 | ＜0.001 |  | -3.89 | 0.77 |  | 29.6 | ＜0.001 |
| Control group | 8.74±0.94 | 38.53±15.79 | 8.75±0.83 |
| Intervention group | 5.78±1.57 | 30.02±19.32 | 13.39±1.14 |
| **9 months post-TIPS** |  | -37.61 | 0.001 |  | -11.71 | ＜0.001 |  | 50.34 | 0.001 |
| Control group | 8.94±1.03 | 40.12±17.65 | 9.68±0.89 |
| Intervention group | 5.19±0.39 | 19.86±7.36 | 14.92±0.76 |
| **12 months post-TIPS** |  | -19.09 | ＜0.001 |  | -17.40 | ＜0.001 |  | 89.58 | ＜0.001 |
| Control group | 6.97±1.13 | 41.85±13.7 | 9.59±0.91 |
| Intervention group | 5.09±0.21 | 17.85±6.8 | 15.91±0.78 |

**Table 4 Repeated measures analysis of variance of compliance behavior scores,Child-Pugh scores and blood ammonia levels in the control and intervention groups**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item/Group** | **1 month post-TIPS** | **3 months post-TIPS** | **6 months post-TIPS** | **9 months post-TIPS** | **12 months post-TIPS** | **F values of group effect** | ***P* values** | ***F* values**  **of time effect** | ***P* values** | **F values of group\*time interaction** | ***P* values** |
| **Compliance behavior scores** |  |  |  |  |  |  |  |  |  |  |  |
| Control group | 6.09±0.48 | 6.17±0.47 | 7.75±0.83 | 7.68±0.89 | 8.59±0.91 | 3996.29 | ＜0.001 | 8468.14 | ＜0.001 | 2025.99 | ＜0.001 |
| Intervention group | 8.63±0.84 | 11.96±0.85 | 12.39±1.14 | 12.92±0.76 | 13.91±0.78 |
| **Blood ammonia level** |  |  |  |  |  | 45.19 | ＜0.001 | 58.75 | ＜0.001 | 42.15 | ＜0.001 |
| Control group | 44.18±30.44 | 40.50±24.46 | 38.53±15.79 | 40.12±17.65 | 41.85±13.7 |
| Intervention group | 39.61±24.11 | 37.32±29.62 | 30.02±19.32 | 19.86±7.36 | 17.85±6.8 |
| **Child-Pugh scores** |  |  |  |  |  | 830.62 | ＜0.001 | 229.17 | ＜0.001 | 33.27 | ＜0.001 |
| Control group | 9.31±1.23 | 9.4±1.08 | 8.74±0.94 | 8.94±1.03 | 6.97±1.13 |
| Intervention group | 5.81±1.66 | 5.87±1.78 | 5.78±1.57 | 5.19±0.39 | 5.09±0.21 |

**Table 5 The incidence of adverse events in the control and intervention groups 12 months post-TIPS**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Group/Time** | **Gingival Bleeding** | **Melena、Hematochezia** | **Hematuria** | **Stage of hepatic encephalopathy** | | | | | **Swelling of lower limbs** | **Fever** | **Shunt stenosis** | **Death** |
| **0** | **1** | **2** | **3** | **4** |
| Intervention group | 4 | 1 | 0 | 0 | 6 | 2 | 1 | 0 | 3 | 1 | 0 | 7 |
| Control group | 7 | 1 | 1 | 1 | 7 | 3 | 1 | 1 | 15 | 4 | 2 | 16 |