**Participant Flow Diagram**

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**Baseline Characteristics**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Control Groupn =32 | Experimental Groupn =30 | *P* |
| Gestational age (weeks) | 33.33±0.54 | 34.30±0.67 | 0.10 |
| Birth weight (kg) | 2.00±0.07 | 1.93±0.13 | 0.64 |
| Sex (male/female) | 15/17 | 13/17 | 0.80 |
| 1-min APGAR | 8.67±0.24 | 9.37±0.32 | 0.96 |
| 5-min APGAR | 9.40±0.22 | 9.64±0.15 | 0.47 |
| Severity (SNAP-Ⅱ) | 8 (0-57) | 8 (0-33) | 0.69 |

Data are presented as mean±SD or median (range).

APGAR indicates appearance, pulse, grimace, activity, respiration.

**Outcome measures**

|  |  |  |
| --- | --- | --- |
|  | Control Groupn =32 | Experimental Groupn =30 |
| **PIPP** | Hospital beginning | 11.17 ± 0.91 | 12.14 ± 0.46 |
| Two weeks later | 13.00 ± 0.46 | 10.50 ± 0.85 |
| **Cortisol** | Hospital beginning | 237.20 ± 43.86 | 184.60 ± 21.17 |
| Two weeks later | 131.00 ± 18.19 | 162.40 ± 23.58 |
| **beta-endorphin** | Hospital beginning | 1.18 ± 0.09 | 1.64 ± 0.39 |
| Two weeks later | 1.39 ± 0.41 | 2.29 ± 0.74 |

Data are presented as mean±SD.

**Adverse events**

There were no adverse events associated with the study.