Distribution of mean and standard deviation of COP displacement in the AP axis, ML axis, and velocity of COP children with autism in different sensory condition in pre-test and post-test.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| variables | Group | condition | pretest | posttest |
| AP Disp (cm) | Control | OB | 2.007 ±0.150 | 1.387 ±0.272 |
| CB | 2.183 ±0.320 | 1.457 ±0.368 |
| OO (dominant) |  |  |
| OO (non-dominant) |  |  |
| CO (dominant) |  |  |
| CO (non-dominant) |  |  |
| DOB |  |  |
| DCB |  |  |
| DOO (dominant) |  |  |
| DOO (non-dominant) |  |  |
| DCO (dominant) |  |  |
| DCO (non-dominant) |  |  |
| training | OB | 1.946 ±0.201 | 1.246 ±0.162 |
| CB | 1.989 ±0.178 | 1.314 ±0.168 |
| OO (dominant) |  |  |
| OO (non-dominant) |  |  |
| CO (dominant) |  |  |
| CO (non-dominant) |  |  |
| DOB |  |  |
| DCB |  |  |
| DOO (dominant) |  |  |
| DOO (non-dominant) |  |  |
| DCO (dominant) |  |  |
| DCO (non-dominant) |  |  |
| ML Disp (cm) | Control | OB | 2.271 ±0.215 | 1.621 ±0.215 |
| CB | 3.153 ±2.762 | 2.503 ±2.762 |
| OO (dominant) |  |  |
| OO (non-dominant) |  |  |
| CO (dominant) |  |  |
| CO (non-dominant) |  |  |
| DOB |  |  |
| DCB |  |  |
| DOO (dominant) |  |  |
| DOO (non-dominant) |  |  |
| DCO (dominant) |  |  |
| DCO (non-dominant) |  |  |
| training | OB |  |  |
| CB |  |  |
| OO (dominant) |  |  |
| OO (non-dominant) |  |  |
| CO (dominant) |  |  |
| CO (non-dominant) |  |  |
| DOB |  |  |
| DCB |  |  |
| DOO (dominant) |  |  |
| DOO (non-dominant) |  |  |
| DCO (dominant) |  |  |
| DCO (non-dominant) |  |  |
| Sway area (cm2 ) | control | OB |  |  |
| CB |  |  |
| OO (dominant) |  |  |
| OO (non-dominant) |  |  |
| CO (dominant) |  |  |
| CO (non-dominant) |  |  |
| DOB | 36.39 ±25.20 |  |
| DCB |  |  |
| DOO (dominant) |  |  |
| DOO (non-dominant) |  |  |
| DCO (dominant) |  |  |
| DCO (non-dominant) |  |  |
| Training | OB |  |  |
| CB |  |  |
| OO (dominant) |  |  |
| OO (non-dominant) |  |  |
| CO (dominant) |  |  |
| CO (non-dominant) |  |  |
| DOB |  |  |
| DCB |  |  |
| DOO (dominant) |  |  |
| DOO (non-dominant) |  |  |
| DCO (dominant) |  |  |
| DCO (non-dominant) |  |  |
| **Mean velocity (cm/s)** | control | OB | 5.136 ±0.734 | 4.983 ±0.711 |
| CB | 5.601 ±0.934 | 1.387 ±0.874 |
| OO (dominant) | 5.09±4.39 | 4.61±3.99 |
| OO (non-dominant) | 6.39±4.66 | 5.73±4.10 |
| CO (dominant) | 12.00±0.00 | 11.47±1.31 |
| CO (non-dominant) | 11.49±1.25 | 9.51±3.90 |
| DOB | 7.88 ± 4.56 |  |
| DCB |  |  |
| DOO (dominant) |  |  |
| DOO (non-dominant) |  |  |
| DCO (dominant) |  |  |
| DCO (non-dominant) |  |  |
| Training | OB | 5.158 ±0.538 | 1.632 ±0.538 |
| CB | 5.443 ±0.582 | 1.246 ±0.735 |
| OO (dominant) | 4.50±4.16 | 2.14±1.28 |
| OO (non-dominant) | 4.56±3.52 | 2.49±2.47 |
| CO (dominant) | 10.03±2.36 | 8.26±4.09 |
| CO (non-dominant) | 9.29±2.56 | 8.14±3.63 |
| DOB |  |  |
| DCB |  |  |
| DOO (dominant) |  |  |
| DOO (non-dominant) |  |  |
| DCO (dominant) |  |  |
| DCO (non-dominant) |  |  |
|  |  |  |  |  |

Note: ML = mediolateral; AP = anteroposterior; Disp = displacement; eyes open, standing on both feet (OB); eyes closed, standing on both feet (CB); eyes open, standing on one foot (OO); eyes closed, standing on one foot (CO); Digit Span, eyes open, standing on both feet(DOB); Digit Span, eyes closed, standing on both feet (DCB); Digit Span, eyes open, standing on one foot (DOO); and Digit Span, eyes closed, standing on one foot (DCO)

نکات :

\*\*در پیش آزمون خیلی از کودکان قادر به ایستادن 20 ثانیه نبودند، به همین دلیل هنگام محاسبا ت آماری برای همسان سازی دادهها، با استفاده از نرم افزار مطلب زمان گرفته شده از 20 ثانیه، 3 ثانیه ابتدایی و انتهایی حذف و زمان 4 تا 17 ثانیه میانه داده ها استخراج شد که همگی کودکان این ثانیه را نگهداری داشتند.

نمرات میانگین متغیرهای فوق براساس **داده های خام دستگاه فورس پلیت (داده های سری زمانی) در فایل اکسل و سپس تحلیل با نرم افزار MATLAB به دست آمده اند.**

فایل اکسل (داده های سری زمانی) تجزیه نیروهای COP در محورهای x و y (در دو راستای قدامی-خلفی و داخلی-خارجی) هستند .

 پارامترهای سطح نوسان ، سرعت متوسط، و جابه جایی قدامی خلفی (AP) و طرفی(ML) مرکز فشار(COP) محاسبه خواهند شد