

**Table 1.** Demographic characteristics of included stroke participants (n=48).

	<b>Anodal group (n=12)</b>	<b>Bilateral group (n=12)</b>	<b>Cathodal group (n=12)</b>	<b>Sham group (n=12)</b>	<b><i>P</i> value</b>
Age (years)	53.55±11.8	54.69±11.0	57.49±11.3	55.12±11.6	0.72
Gender (Male / Female)	10/2	9/3	10/2	9/3	0.92
Type of stroke (ischemic/hemorrhagic)	6/6	8/4	7/5	4/8	0.40
Location of lesion (C/S/M)	1/10/1	2/10/0	0/11/1	1/10/1	0.80
Lesion side (Left/Right)	3/9	3/9	8/4	8/4	0.07
Post stroke period (months)	73.38±58.3	62.35±27.28	61.14±47.6	59.93±42.7	0.97
MMSE	28.67±1.8	28.75±1.1	28.42±2.0	27.83±1.6	0.42

Data are presented as the mean ± SD or number.

Abbreviations: MMSE, mini-mental state examination.

C/S/M indicates cortical, subcortical, and mixed cortical & subcortical

**Table 2.** Cognitive dual task (CDT) walking performance after different tDCS interventions (n=48).

Group	Anodal group (n=12)		Bilateral group (n=12)		Cathodal group (n=12)		Sham group (n=12)		<i>p</i> value
	pre	post	pre	post	pre	post	pre	post	
Speed <sub>(cm/sec)</sub>	51.68±23.0	55.23±23.4	48.15±15.3	56.51±18.4 <sup>#</sup>	43.14±16.5	52.86±13.2 <sup>#</sup>	42.06±22.5	43.81±22.5	
change	3.55±4.3		8.37±5.8 <sup>s</sup>		9.72±8.3 <sup>s</sup>		1.75±2.9		0.003
Cadence <sub>(step/min)</sub>	84.61±21.8	85.28±21.9	73.82±16.9	79.83±18.4 <sup>#</sup>	67.89±20.5	80.32±12.9	75.83±14.0	78.01±14.0	
change	0.68±6.5		6.01±4.0		12.43±17.7		2.18±2.5		0.038
Step time <sub>(UA)(sec)</sub>	0.65±0.2	0.66±0.2	0.70±0.2	0.64±0.2	0.76±0.3	0.67±0.1	0.78±0.4	0.74±0.3	
change	0.02±0.1		-0.06±0.1		-0.08±0.2		-0.04±0.1		0.070
Step time <sub>(A)(sec)</sub>	0.88±0.3	0.85±0.3	1.04±0.4	0.92±0.3	1.29±1.1	0.87±0.2	0.88±0.2	0.85±0.1	
change	-0.04±0.1		-0.12±0.2		-0.42±1.1		-0.3±0.1		0.685
Step length <sub>(UA)(cm)</sub>	32.52±14.5	35.07±16.2	35.13±8.6	37.97±8.8 <sup>#</sup>	37.47±11.3	40.03±11.6 <sup>#</sup>	31.57±11.1	30.80±11.6	
change	2.56±3.0		2.84±3.7 <sup>s</sup>		2.56±2.5 <sup>s</sup>		-0.77±2.4		0.013
Step length <sub>(A)(cm)</sub>	38.60±12.9	40.59±13.0	42.48±7.7	46.10±9.2	37.98±7.2	41.16±7.9	32.97±15.1	33.15±14.7	
change	1.99±2.7		3.61±2.5		3.19±4.1		0.18±4.4		0.118
ST <sub>(UA)</sub> variability (%)	11.54±8.5	15.54±19.9	20.00±22.2	8.21±6.8	10.04±7.2	7.83±3.6	6.95±3.8	8.27±6.0	
change	4.00±17.0		-11.80±18.9		-2.22±8.4		1.33±5.5		0.102
ST <sub>(A)</sub> variability (%)	9.72±11.2	8.93±8.6	19.47±28.9	12.26±19.8	17.19±27.2	8.51±5.9	10.03±13.4	7.88±7.6	
change	-0.79±13.2		-7.20±11.9		-8.68±27.0		-2.15±14.7		0.431
SL <sub>(UA)</sub> variability (%)	15.65±23.1	17.99±39.4	12.65±13.7	8.48±5.8	11.07±8.6	8.20±5.1	8.27±4.2	10.21±7.2	
change	2.34±19.3		-4.18±13.1		-2.87±6.8		1.94±8.3		0.462
SL <sub>(A)</sub> variability (%)	8.19±4.7	8.74±10.1	9.51±6.5	6.26±4.0	6.80±3.4	7.26±3.4	14.29±12.0	8.41±6.0	
change	0.55±13.0		-3.25±7.0		0.47±3.5		-5.87±8.6		0.224
DTC (%)	-20.10±16.4	-12.07±10.4	-27.99±23.6	-26.95±24.1	-22.22±25.4	-17.49±13.9	-20.26±12.3	-20.79±18.3	
change	8.03±11.8		1.05±12.7		4.73±17.7		-0.53±16.2		0.585

Data are presented as the mean ± SD.

Abbreviations: UA, unaffected side; A, affected side; ST, step time; SL, step length; DTC, dual task cost.

#, *p*<0.05 for intragroup comparison. <sup>a</sup>, *p*<.05 as compared with Anodal group. <sup>s</sup>, *p*<.05 as compared with Sham group.

**Table 3.** Motor dual task (MDT) walking performance after different tDCS interventions (n=48).

Group	Anodal group (n=12)		Bilateral group (n=12)		Cathodal group (n=12)		Sham group (n=12)		<i>p value</i>
	pre	post	pre	post	pre	post	pre	post	
Speed <sub>(cm/sec)</sub>	57.45±26.4	58.57±26.7	60.17±29.6	67.93±26.3 <sup>#</sup>	51.91±12.1	58.56±10.2 <sup>#</sup>	44.19±23.1	45.99±23.9	
change	1.12±3.7		7.76±6.7 <sup>a,s</sup>		6.64±3.9 <sup>a,s</sup>		1.80±4.3		0.001
Cadence <sub>(step/min)</sub>	95.00±19.2	94.67±19.2	87.94±19.2	92.61±17.6 <sup>#</sup>	85.49±13.6	89.07±9.5	82.26±17.3	79.55±17.3	
change	-0.34±4.7		4.67±5.3		3.58±5.5		-2.71±10.4		0.057
Step time <sub>(UA)(sec)</sub>	0.61±0.2	0.57±0.1	0.60±0.1	0.57±0.1	0.65±0.2	0.59±0.1	0.72±0.4	0.69±0.3	
change	-0.04±0.2		-0.35±0.7		-0.06±0.1		-0.03±0.2		0.352
Step time <sub>(A)(sec)</sub>	0.73±0.2	0.77±0.2	0.83±0.3	0.80±0.2 <sup>#</sup>	0.81±0.2	0.79±0.1	0.83±0.2	0.91±0.3	
change	0.04±0.1		-0.04±0.1		-0.02±0.2		0.09±0.3		0.037
Step length <sub>(UA)(cm)</sub>	33.66±13.6	33.10±15.3	35.72±15.0	38.49±13.0	37.16±11.5	39.00±9.8	29.15±11.3	30.15±12.0	
change	-0.56±5.3		2.76±4.6		1.83±4.1		1.00±3.5		0.600
Step length <sub>(A)(cm)</sub>	38.15±14.3	41.16±13.4	44.66±10.6	48.06±8.1	36.91±5.5	40.66±6.2 <sup>#</sup>	32.81±13.1	34.49±13.4	
change	3.01±4.5		3.40±5.1		3.75±3.5		1.68±3.2		0.591
ST <sub>(UA)</sub> variability (%)	8.48±4.8	5.05±3.5	7.41±4.7	7.87±4.0	7.41±2.1	6.92±5.4	7.63±7.3	7.09±4.5	
change	-3.43±3.9		0.45±4.9		-0.49±5.1		-0.54±5.8		0.259
ST <sub>(A)</sub> variability (%)	7.26±6.3	4.58±2.5	10.70±18.1	5.47±3.6	8.82±7.3	5.94±2.5	4.73±2.2	8.20±8.7	
change	-2.69±6.7		-5.23±19.2		-2.88±5.1		3.47±8.3		0.170
SL <sub>(UA)</sub> variability (%)	13.51±14.8	21.50±42.7	11.27±8.5	10.71±7.9	8.94±5.3	8.22±5.7	12.44±8.2	19.78±33.7	
change	7.99±30.0		-0.55±8.1		-0.72±5.0		7.34±28.9		0.214
SL <sub>(A)</sub> variability (%)	13.13±21.1	6.22±2.7	9.22±10.0	6.92±6.0	6.27±3.4	5.56±1.8	8.02±6.7	10.98±12.4	
change	-6.91±21.0		-2.29±10.7		0.71±4.0		2.96±13.7		0.941
DTC (%)	-9.98±13.2	-8.24±11.5	-18.42±21.3	-15.55±17.3	-10.86±17.2	-12.20±16.3	-10.69±17.9	-11.13±13.5	
change	-1.73±7.8		2.86±13.0		-1.34±22.0		-0.44±10.3		0.892

Data are presented as the mean±SD.

Abbreviations: UA, unaffected side; A, affected side; ST, step time; SL, step length; DTC, dual task cost.

#,  $p < 0.05$  for intragroup comparison. <sup>a</sup>,  $p < 0.05$  as compared with Anodal group. <sup>s</sup>,  $p < 0.05$  as compared with Sham group.

**Table 4.** Single walking (SW) performance after different tDCS interventions (n=48).

Group	Anodal group (n=12)		Bilateral group (n=12)		Cathodal group (n=12)		Sham group (n=12)		p value
	pre	post	pre	post	pre	post	pre	post	
Speed <sub>(cm/sec)</sub>	63.21±21.6	62.81±20.4	64.69±24.5	71.69±21.3 <sup>#</sup>	60.09±16.5	66.61±13.0	56.19±21.1	55.97±21.7	
change	-0.41±4.3		7.00±5.5 <sup>a,s</sup>		6.52±7.9		-0.21±2.6		0.003
Cadence <sub>(step/min)</sub>	92.81±18.7	93.70±18.2	88.59±15.7	94.69±13.6 <sup>#</sup>	84.89±14.8	91.80±10.3 <sup>#</sup>	88.86±12.3	88.30±11.4	
change	0.88±5.1		6.10±4.1 <sup>s</sup>		6.92±8.4		-0.57±3.1		0.003
Step time <sub>(UA)(sec)</sub>	0.60±0.1	0.62±0.1	0.65±0.3	0.52±0.04 <sup>#</sup>	0.62±0.1	0.59±0.1	0.59±0.1	0.58±0.1	
change	0.02±0.1		-0.13±0.2 <sup>a</sup>		-0.03±0.05		-0.01±0.0		0.007
Step time <sub>(A)(sec)</sub>	0.77±0.2	0.73±0.2	0.82±0.2	0.78±0.1 <sup>#</sup>	0.85±0.3	0.75±0.1 <sup>#</sup>	0.80±0.1	0.81±0.1	
change	-0.04±0.1		-0.04±0.0 <sup>s</sup>		-0.11±0.2 <sup>s</sup>		0.01±0.0		0.007
Step length <sub>(UA)(cm)</sub>	36.47±13.0	38.31±14.3	40.07±9.7	40.92±7.8	41.19±11.5	41.97±10.9	34.75±11.3	35.29±12.3	
change	1.84±5.2		0.85±3.8		0.78±2.9		0.54±3.0		0.825
Step length <sub>(A)(cm)</sub>	45.98±13.0	41.58±10.5	46.00±10.3	50.45±9.8	43.42±5.1	45.94±4.0	40.39±10.9	40.32±11.6	
change	-4.41±8.5		4.45±7.7 <sup>a</sup>		2.52±4.1 <sup>a</sup>		-0.07±2.3		0.006
ST <sub>(UA)</sub> variability (%)	7.55±5.5	10.71±11.3	4.80±2.9	5.37±3.4	5.42±2.1	4.97±1.9	5.48±2.8	6.36±3.2	
change	3.16±12.6		0.57±3.2		-0.45±2.6		0.88±2.1		0.775
ST <sub>(A)</sub> variability (%)	4.86±3.9	9.18±10.2	8.58±12.3	13.28±22.8	8.60±7.3	4.85±2.0	4.79±2.1	4.11±2.0	
change	4.32±11.0		4.70±24.4		-3.75±6.9		-0.68±3.4		0.047
SL <sub>(UA)</sub> variability (%)	11.20±13.1	16.66±26.8	5.83±3.8	6.54±2.4	4.66±3.3	6.33±2.5	8.58±6.3	9.25±4.9	
change	5.46±17.2		0.72±3.1		1.67±3.0		0.67±6.7		0.712
SL <sub>(A)</sub> variability (%)	5.44±4.4	6.43±2.8	4.52±3.1	4.59±2.5	5.44±3.8	5.32±3.4	5.81±2.1	5.45±3.2	
change	0.99±5.3		0.07±2.7		-0.12±4.9		-0.36±3.4		0.583

Data are presented as the mean ± SD.

Abbreviations: UA, unaffected side; A, affected side; ST, step time; SL, step length.

#, p<0.05 for intragroup comparison.

<sup>a</sup>, p<.05 as compared with Anodal group. <sup>s</sup>, p<.05 as compared with Sham group

**Table 5.** Corticomotor activity after different tDCS interventions (n=48).

Group	Anodal group (n=12)		Bilateral group (n=12)		Cathodal group (n=12)		Sham group (n=12)		<i>p value</i>
	pre	post	pre	post	pre	post	pre	post	
RMT (%)	57.00±7.68	57.92±7.9	58.33±12.7	59.50±12.7	60.58±11.2	62.17±10.8	60.00±13.4	60.08±13.4	
change	0.92±1.5		1.17±1.6		1.58±1.7		0.08±0.8		0.153
SP (ms)	128.45±21.2	130.11±23.0	143.00±32.3	154.09±35.6 <sup>#</sup>	130.65±14.5	140.14±14.9 <sup>#</sup>	144.71±14.2	144.87±15.4	
change	1.66±9.1		11.09±9.8 <sup>a,s</sup>		9.49±9.8 <sup>s</sup>		0.16±4.3		0.020
SICI (%)	49.99±11.3	46.61±13.4	49.57±16.0	49.62±14.7	42.81±6.2	41.90±9.0	47.38±16.0	49.43±13.3	
change	-3.38±4.3		0.53±15.9		-0.91±10.6.		2.05±10.5		0.296

Data are presented as the mean ± SD.

Abbreviations: RMT, resting motor threshold; SP, silent period; SICI, short interval intracortical inhibition.

<sup>#</sup>, p<0.05 for intragroup comparison. <sup>a</sup>, p<.05 as compared with Anodal group. <sup>s</sup>, p<.05 as compared with Sham group

**Table 6.** Fugl-Meyer score after different tDCS interventions. (n=48)

Group	Anodal group (n=12)		Bilateral group (n=12)		Cathodal group (n=12)		Sham group (n=12)		<i>p value</i>
	pre	post	pre	post	pre	post	pre	post	
FMA	24.33±5.4	24.83±5.2	26.75±3.8	27.42±3.6 <sup>#</sup>	23.83±3.8	24.83±3.6 <sup>#</sup>	24.83±5.1	25.17±4.7	
change	0.50±0.7		0.67±0.7		1.00±1.0		0.33±0.7		0.181

Data are presented as the mean ± SD.

Abbreviations: FMA: Fugl-Meyer assessment. #, p<0.05 for intragroup comparison.