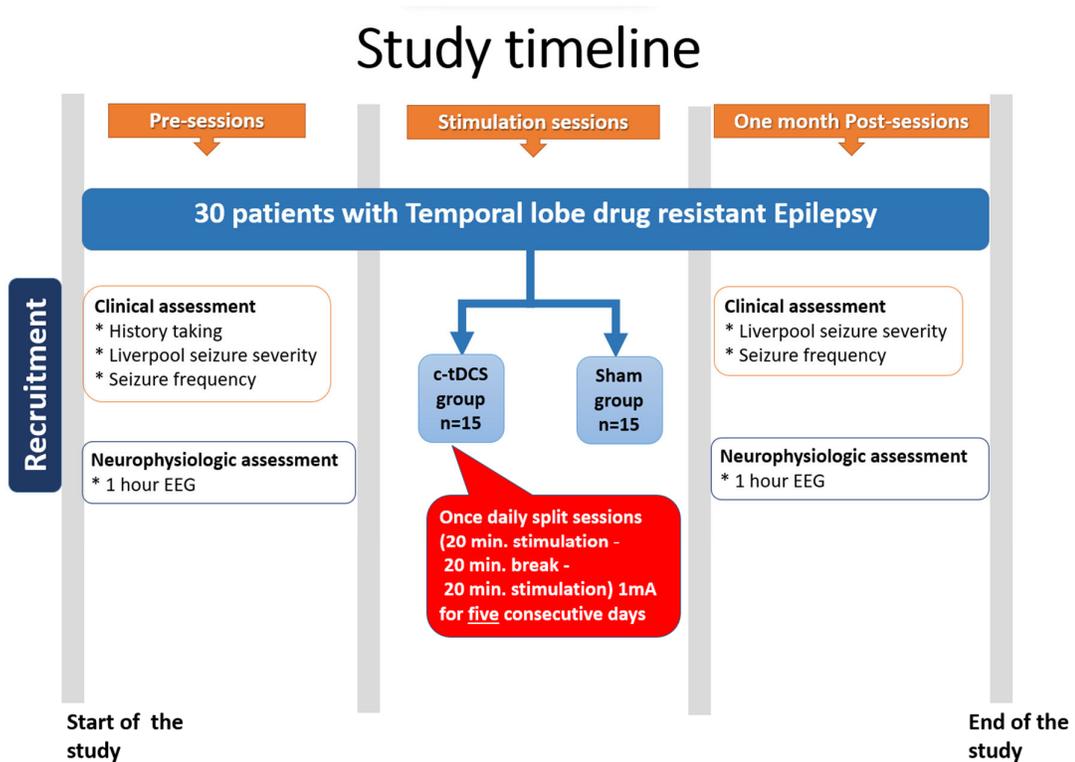


The 30 patients were divided into two groups (c-tDCS and sham).

In (c-tDCS group) patients received 5 consecutive daily sessions of cathodal transcranial direct current stimulation.

In (sham group) patients received sham 5 consecutive daily sessions of cathodal transcranial direct current stimulation.



RESULTS

Table (1): The bassline profile for patient's subgroup

	Group c-tDCS n=15	Group Sham n=15	p-value
Gender			
Female	8 (53.3%)	8 (53.3%)	1.000
Male	7 (46.7%)	7 (46.7%)	
Age(years)			
Mean \pm SD	28.1 \pm 8.5	28.1 \pm 7.1	0.982
Years of education			
Mean \pm SD	10.5 \pm 4.7	9.8 \pm 4.1	0.712
Age of onset (years)			
Median (Range)	14 (2-39)	12 (1-25)	0.567
Epilepsy duration (years)			
Median (Range)	11 (1-28)	16 (6-30)	0.250
Type of focal seizures			
Focal aware	3 (20.0%)	4 (26.7%)	0.867
Focal with impaired awareness	4 (26.7%)	3 (20.0%)	
Focal to bilateral tonic-clonic	8 (53.3%)	8 (53.3%)	
Number of ASM	2 (2-3)	2 (2-3)	1.000
Etiology of seizures			
Non-Structural	5 (33.3%)	6 (40.0%)	0.705
Structural	10 (66.7%)	9 (60.0%)	
Abnormal MRI	10 (66.7%)	9 (60.0%)	0.705
Seizure frequency	5 (3-20)	8 (4-20)	0.367
Liverpool Seizure Severity Scale	67.0 \pm 8.7	59.7 \pm 10.9	0.051
EEG epochs having epileptiform discharges/hour	29 (3-238)	45 (5-200)	0.051

Table (2): Comparison between c-tDCS and sham groups after one-month post sessions regarding electroclinical parameters.

	Group c-tDCS n=15	Group Sham n=15	p-value
Seizure frequency / 4 weeks	1 (0-4)	4 (2-12)	<0.001
Liverpool Seizure Severity Scale	27.5 (0-52.5)	47.5 (0-62.5)	0.004
EEG epochs having epileptiform discharges/hour	20 (1-219)	39 (5-168)	0.048

Table (3): Percentage of change in in electroclinical parameter between patient's subgroup one month post sessions

Percentage of change	Group c-tDCS	Group Sham	p-value
Seizure frequency	-77.9 %*	-39.0 %	<0.001
Liverpool Seizure Severity Scale	-48.3 %	-18.5 %	<0.001
EEG epochs having epileptiform discharges/hour	-28.0 %	-11.93 %	0.021

*(-): percentage of reduction

By calculating the Absolute risk reduction for c-tDCS, we found that 33.33% of the drug-resistant temporal lobe epilepsy recruited patients will not have seizures for one month when 1mA c-tDCS is applied by this protocol (20min stimulation -20min break -20min stimulation) for 5 successive day sessions in adjunction with the ASM with 95% confidence interval: [8.55%, 58.12%].

Table (4): Absolute risk reduction for c-tDCS group.

		c-tDCS	Sham	p-value
Seizure frequency in one month post-sessions	None	5(33.3)	0	0.042
	One or more seizure	10(66.7)	15(100.0)	