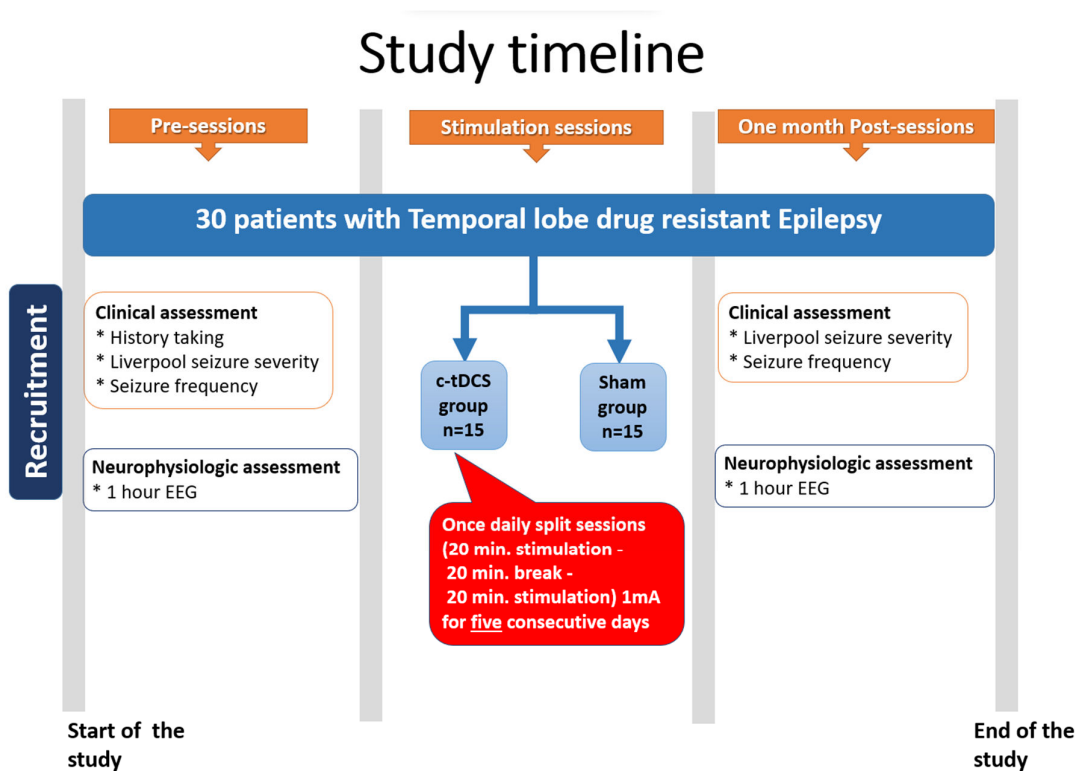


The 30 patients were divided into two groups (c-tDCS and sham).

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

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

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

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

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

\*(-): 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.

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