

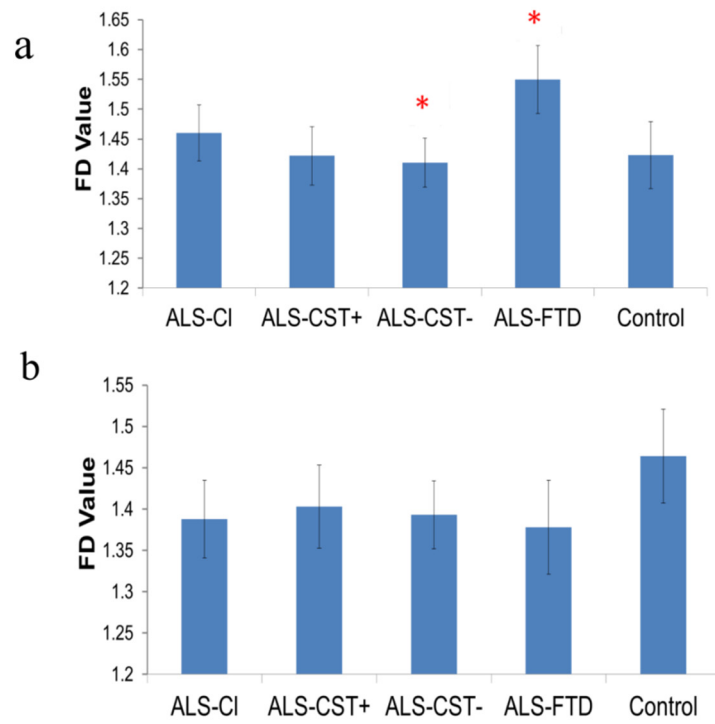
## Supplementary Material

# Corticospinal Tract and Related Grey Matter Morphometric Shape Analysis in ALS Phenotypes: A Fractal Dimension Study

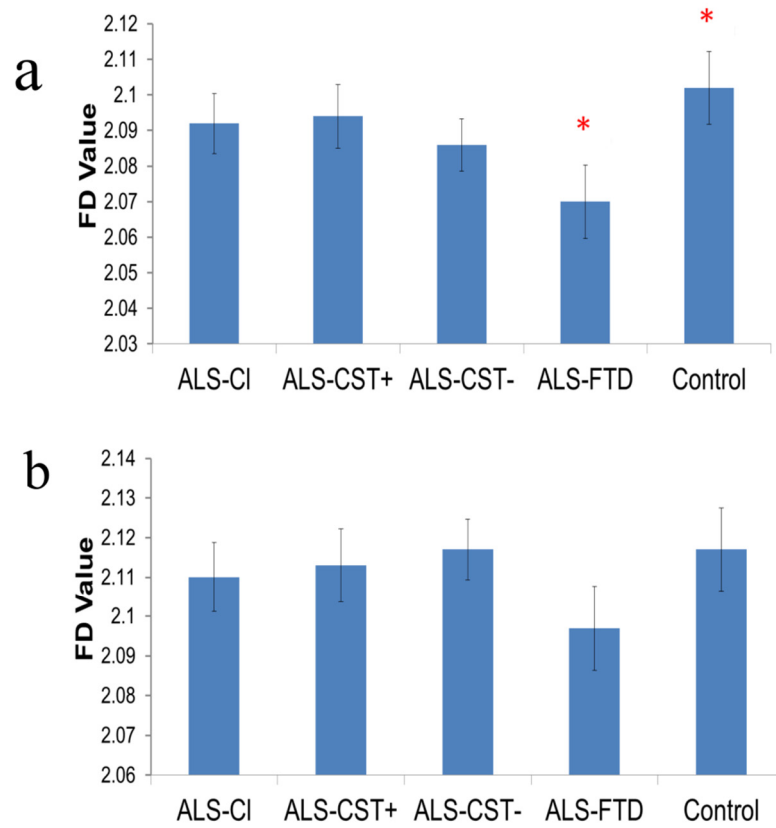
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**Table S1.** –Clinical characteristics of neurological controls.

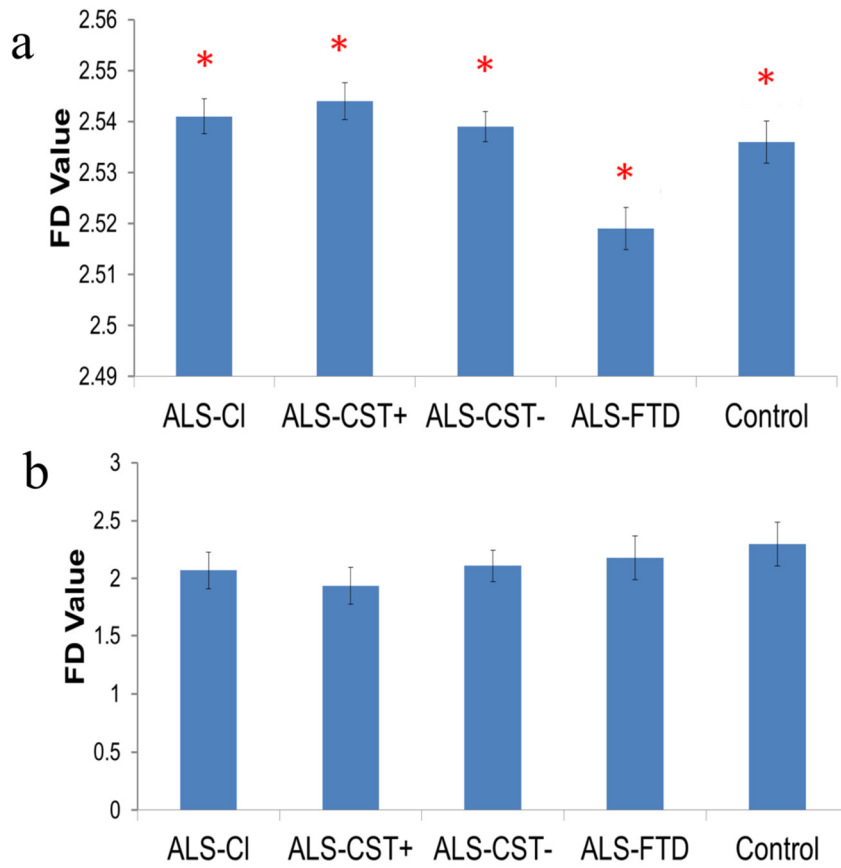
Subject	Clinical condition
1	Severe fatigue
2	Stiff person syndrome with severe spasticity
3	Parkinsonism
4	Depression, cervical cancer, fibromyalgia
5	Fibromyalgia-like or myofascial pain syndrome
6	Painful sensory polyneuropathy
7	Insomnia from involuntary muscle twitches
8	Parkinson's disease or parkinsonism
9	Lower motor neuron abnormalities at cervical and lumbosacral levels
10	Non-length dependent small fiber sensory neuropathy
11	Pain in joint, pain in lower leg
12	Small fiber neuropathy
13	Large fiber neuropathy
14	Fibromyalgia-like syndrome



**Figure S1.** - Compared to neurologic controls, FD values ( $\pm$ standard error of mean, SEM) of PMC-CST are significantly decreased in ALS-CST- patients and increased in ALS-FTD patients of only the right (a) but not left (b) hemisphere. \*indicates significance between groups at  $p < 0.05$ .



**Figure S2.** - Compared to neurologic controls, FD values ( $\pm$ SEM) of PMC GM are significantly decreased in right (a) but not left (b) hemisphere of only ALS-FTD patients. \*indicates significance between groups at  $p < 0.05$ .



**Figure S3.** - Compared to neurologic controls, FD values ( $\pm$ SEM) of non-PMC and non-PSC GM in (a) are increased in ALS-CI, ALS-CST+, and ALS-CST- patients but decreased in ALS-FTD patients. However, FD values ( $\pm$ SEM) of non-CST WM in (b) are not significantly different between neurologic controls and ALS groups. \*indicates significance between groups at  $p < 0.05$ .