

### Background

Only a handful of cases of unilateral apraxia of eyelid closure (AEC) & eyelid closure impersistence exist in the literature

Difficulty with voluntary eyelid closure maintenance thought likely due to motor impersistence/apraxia from parietal cortex lesion

### Case description

70-year-old M with heavy 70-pack-year smoking history presented with left sided facial droop & left arm/leg weakness

Able to close both eyes on command, but difficulty keeping left eye closed for > 1-2 seconds

Able to blink and maintain eye closure during sleep

CT Head showed right MCA inferior division infarct as well as loss of gray-white differentiation within right posterior periventricular frontoparietal parenchyma

Apraxia of eyelid closure is an infrequently encountered finding. Additional cases are needed to assess what the etiology of this finding is

<https://youtu.be/74TiqvAZaUE>

### Discussion

- Apraxia of eyelid opening is a much more frequently encountered diagnosis in the literature
- AEC is more commonly encountered in patients with diagnoses such as ALS, progressive supranuclear palsy & Huntington's disease
- Multiple theories exist as to what causes this particular finding.
- Previous cases have reported associations with lesions in the right frontal/parietal lobe as seen in our patient while other reports suggest an issue with the corpus callosum and abnormalities with brain signaling.
- One other theory suggests that a lesion affecting control of the contralateral orbicularis oculi results in this phenomenon.

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