■ Clinical commentary

Epileptic Disord 2022; 24 (1): 156-162

Epileptic Disorders

Flashing lights and epileptic spasms: should we be routinely performing intermittent photic stimulation in infants?

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Introduction

- Photosensitivity is an abnormal cortical response to light stimulation and is tested for on routine EEGs with intermittent photic stimulation.
- It can result in abnormal cortical responses alone (photoparoxysmal responses) or clinical seizures (photoconvulsive response).
- Most commonly associated with generalized epilepsy.
- Not routinely tested for in young (<1 year old) patients.

Case Report

- Patient with **ALG13** mutation (c.320A>G [p.Asn107Ser]), an X-linked dominant epileptic encephalopathy gene which results in a severe development and epileptic encephalopathy.
- Developed infantile spasms (IS) at 4 months of age and began treatment at 6 months.
- Had recurrence of IS at 13 months of age and on her subsequent 5 EEGs had reproducible photoconvulsive (with IPS while awake) or photoparoxysmal (with IPS while asleep) responses.
- With escalation of therapy, the strength of the IPS declined and then disappeared.

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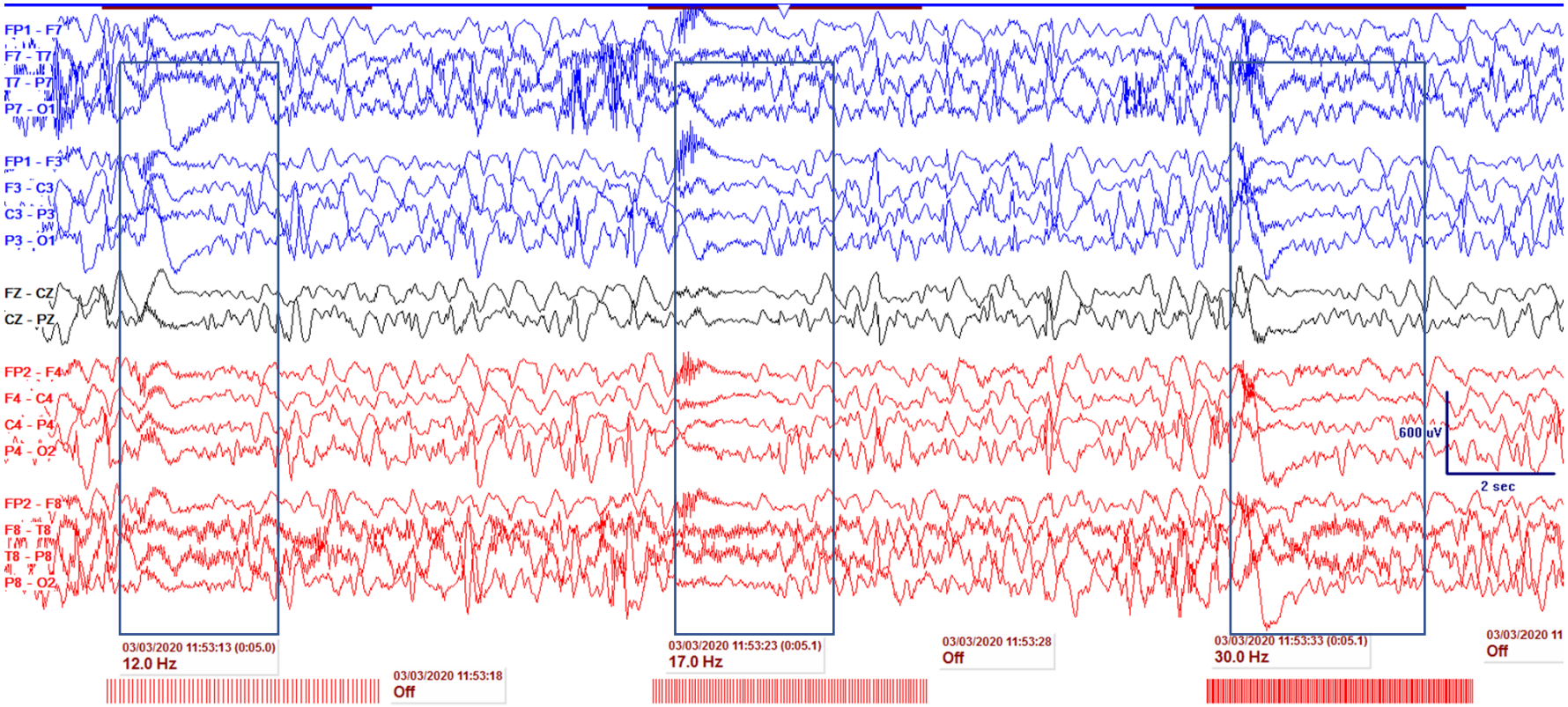

Representative EEG of intermittent photic stimulation triggering electroclinical epileptic spasms, showing spasm onset with diffuse high-amplitude slow waves followed by diffuse attenuation and low-amplitude fast activity. Boxes demarcate the spasm. Spasms were triggered by 12, 17 and 30-Hz stimulation.

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Discussion

- Photic-induced myoclonic seizures have been reported in trisomy 13 and benign myoclonic seizures of infancy, but spasms induced by IPS have never been reported.
- The findings may be an isolated response of this single patient or a phenotypic feature of this *ALG13* mutation.
- However, since it has never been consistently looked for, it may be a more general response in populations of patients with infantile spasms.
- Therefore, we recommend IPS as part of routine EEG for patients with IS, regardless of age.

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