

# Defecation reflex seizures: a case report with long-term VEEG monitoring, neuroimaging and comprehensive epilepsy evaluation

Renata Pina Rocha<sup>1</sup>, Eugenia Fialho Macedo<sup>1</sup>,  
Regina Maria França Fernandes<sup>1</sup>, Ursula Thomé<sup>1</sup>,  
Américo C. Sakamoto<sup>1</sup>, Lauro Wichert-Ana<sup>2</sup>,  
Ana Paula Andrade Hamad<sup>1</sup>

<sup>1</sup> Department of Neurosciences and Behavioural Sciences,

<sup>2</sup> Section of Nuclear Medicine, Internal Medicine Department, Ribeirão Preto Medical  
School, University of São Paulo, Ribeirão Preto, Brazil

# Reflex seizures

- Reflex seizures are those consistently elicited by a specific afferent sensory stimulus or an activity undertaken by the patient.
- About 5-6% of patients with epilepsy present with reflex epilepsy.
- Stimulus may be somatosensorial, proprioceptive, praxic or cognitive.
- Reflex seizures may be difficult to control with antiepileptic medication.

# Defecation reflex seizures

- Defecation has rarely been reported as a trigger for reflex seizures.
- We describe the third case of epilepsy induced by defecation reported in the literature.
- These may be a diagnostic challenge and postpone specific treatment, leading to misdiagnosis and inappropriately attributing symptoms to syncope.

# Defecation reflex seizures

- In our case, we observed convergence of irritative, symptomatogenic and ictal onset zones, pointing to the dominant temporal region.
- The structural and functional connectivity between the temporal lobe and insula may suggest that these are symptomatogenic areas for the clinical presentation of defecation reflex seizures.
- Despite successful seizure control following a correct diagnosis, cognitive, behavioural and quality of life impairments were observed. This seizure type may be unpleasant and stigmatizing for affected patients.