

# Stimulus-induced Rhythmic, Periodic, or Ictal Discharges (SIRPDs) associated with seizures in cefepime neurotoxicity

Descargas ictais, periódicas ou rítmicas induzidas por estímulos (SIRPIDs) associadas a crises epilépticas na neurotoxicidade por cefepime

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Cefepime was started for a patient with urinary tract infection and renal failure. The next day, she started confusion and seizures. EEG recorded Stimulus-induced Rhythmic, Periodic,

or Ictal Discharges (SIRPIDS) associated with seizures (Figure). Cefepime was discontinued. Subsequent EEG demonstrated only slowed background (SB).



**Figure.** Initial EEG. Prior to stimulation, slowing of background (A). After sternal rub, bilateral triphasic waves (repeated every 0.5 s) prominent in the fronto-central regions of the two hemispheres, left and median predominated (B). This activity was associated with jerks affecting right upper limb.

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The EEG in cefepime neurotoxicity (CN) is considered non-reactive to stimulation, and characterized for SB associated or not with periodic discharges, including triphasic waves (TWs). Discordantly, we describe SIRPIDS in CN<sup>1,2</sup>.

Our report and the recent description of repeated TWs as ictal pattern<sup>3,4</sup> demonstrate that at least some discharges in CN are epileptic related.

Alerting stimuli activate the arousal circuitry, and, when combined with hyperexcitable cortex, result in SIRPIDS and seizures<sup>5</sup>.

## References

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