Letter to the Editors

Brugada-like ECG abnormalities during thioridazine overdose

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A previously healthy 58-year-old woman was comatose when admitted to our emergency department. Physical evaluation showed muscular rigidity, opisthotonus, external-rotation of upper limbs in response to painful stimulation and neck stiffness. Arterial blood pressure (120/80 mmHg) and temperature (36.5 °C) were unremarkable. The ECG showed sinus rhythm with significant QT lengthening (Figure 1A). A CT scan of the brain and evaluation of spinal fluid were normal. The patient was intubated and mechanically ventilated.

A few hours after admission, we learnt that the patient's husband was being treated with haloperidol and risperidone. The ECG recorded the day after evolved into a Brugada-like pattern (Figure 1B). Over the next 72 h, both the ECG and the clinical abnormalities resolved (Figure 1C), and she was extubated on day 3.

She denied deliberate ingestion of psychoactive

drugs. Later we learned that the patient's husband was also receiving thioridazine. Thioridazine, measured by HPLC-UV and FL, in a blood sample drawn from the patient on day 4 was 1.48 µg ml⁻¹ (therapeutic levels for our laboratory are up to 2 µg dl⁻¹). No haloperidol or risperidone was detectable in the same sample. In the literature there are several reports of Brugada-like ECG abnormalities during tricyclic antidepressant intoxication [1, 2], but such abnormalities have not been reported during neuroleptic overdose.

References

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- 2 Goldgran-Toledano D, Sideris G, Kevorkian JP. Overdose of cyclic antidepressants and the Brugada syndrome. *N Engl J Med*, 2002; 346 (20): 1591–2.

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Figure 1

(A) Sinus rhythm with significant QT lengthening; (B) Brugada-like pattern; (C) Normal ECG