

A Rare Case of Metoclopramide-Induced Serotonin Syndrome

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Introduction

- Serotonin Syndrome is a severe drug reaction stemming from an increase in serotonergic activity in the nervous system at the 5HT-1A & 5HT-2A receptors associated with the use of several medications.
- Symptoms are variable, and include altered mental status and autonomic and neuromuscular hyperactivity.
- Treatment consists of withdrawal of causative agents and supportive care along with benzodiazepines, with the possible addition of cyproheptadine for more severe cases.
- We present a case of Serotonin Syndrome caused by the interaction of Metoclopramide and Sertraline

Case Description

- **HPI:** A 34 year old Female with a past medical history of anxiety on sertraline who presented for evaluation of altered mental status. The patient was seen at an urgent care the previous evening complaining of headache and insomnia, and was discharged home after receiving lorazepam, diphenhydramine, and metoclopramide. A few hours later, the patient was brought to the Emergency Department becoming increasingly confused and agitated, with reported auditory and visual hallucinations.
- **PE:** The patient was afebrile and hemodynamically stable, but appeared restless, diaphoretic, and would not follow commands. Mydriasis and choreiform movements of the upper and lower extremities were noted, and reflexes were found to be 2+ in the upper extremities and 3+ in lower extremities without any clonus.

Figures

Figure 1. Clinical Presentations, adapted from Francescangeli et al (2019).

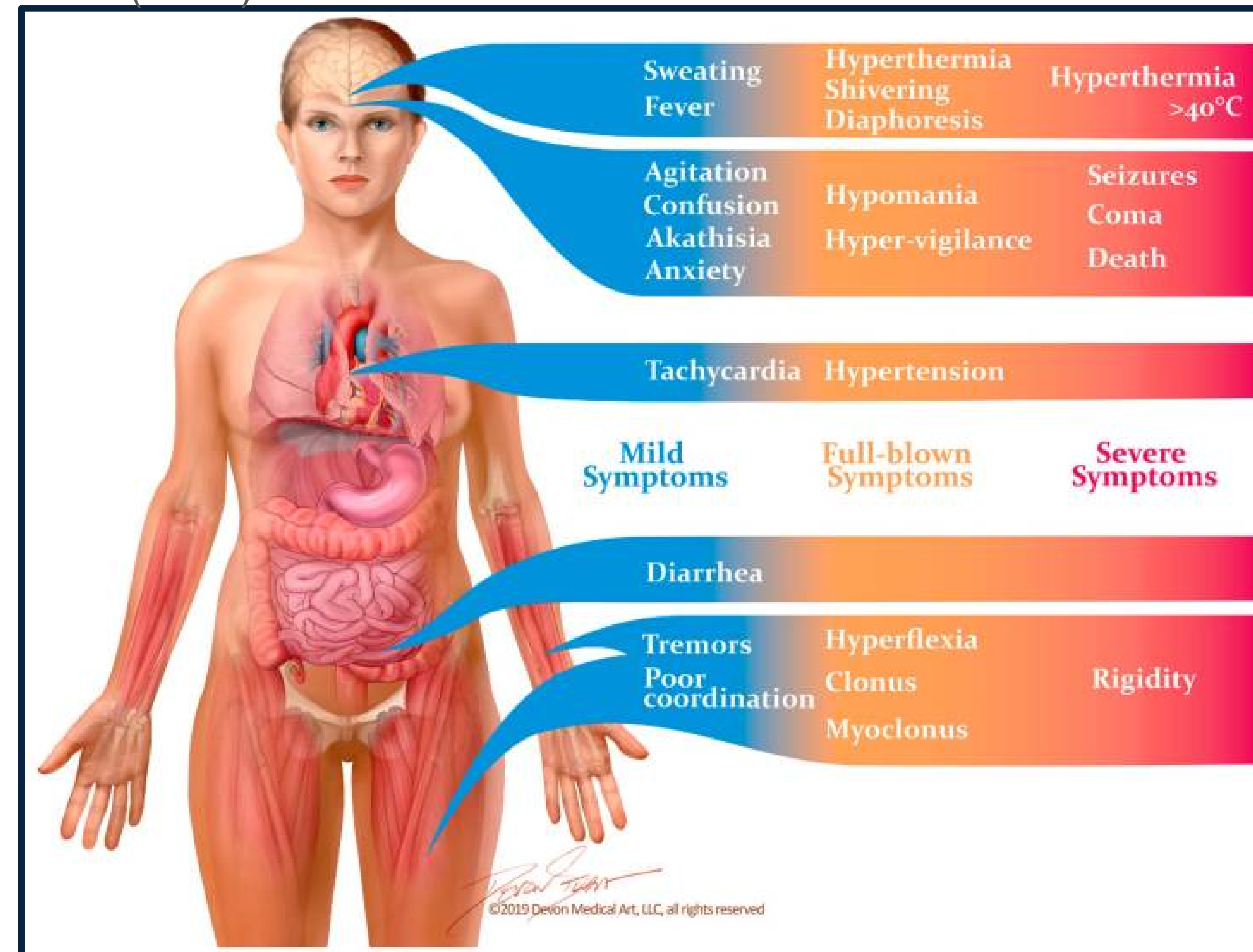
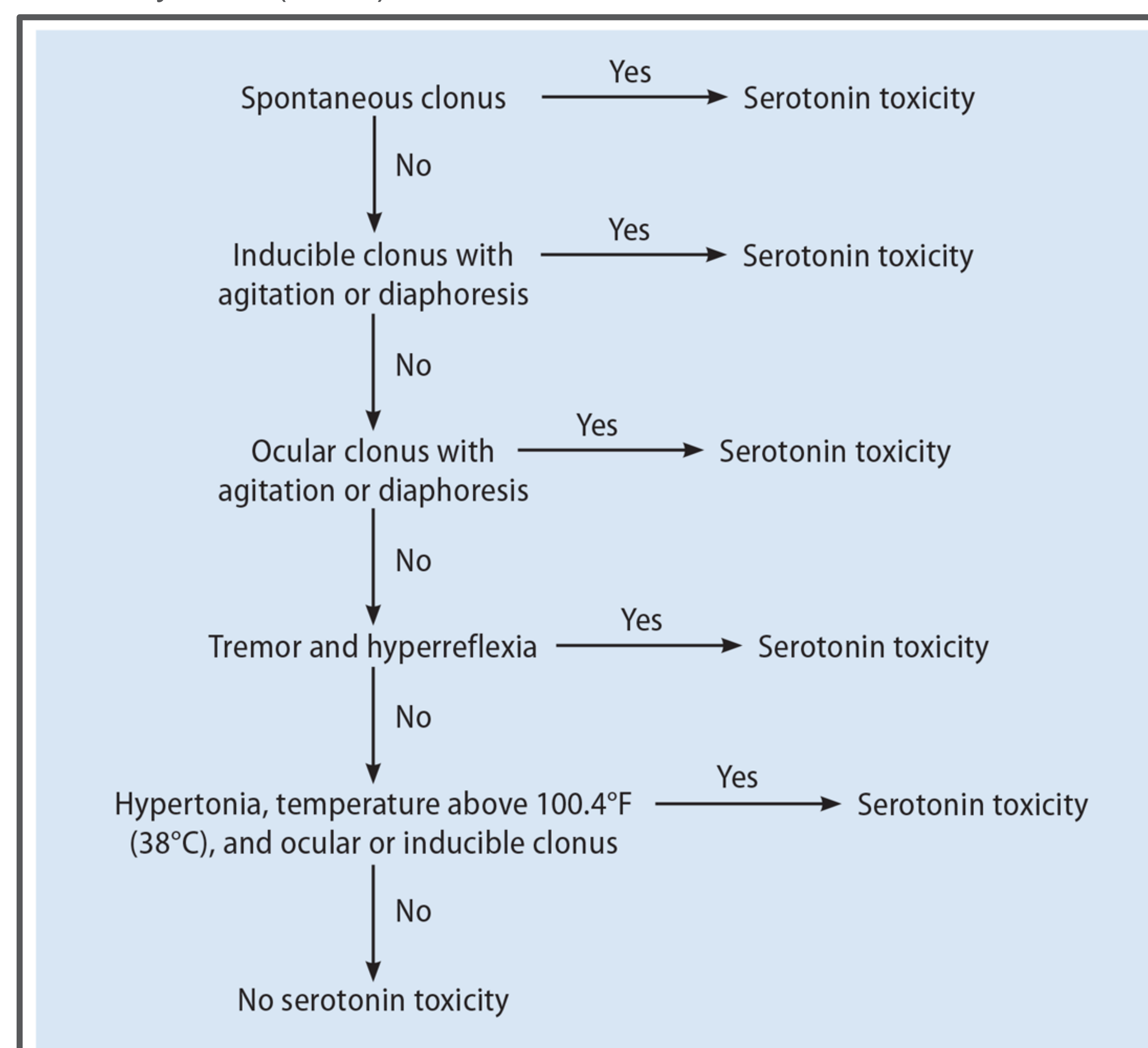


Table 1. Hunter Serotonin Toxicity Criteria, adapted from Dunkley et al (2003)



Discussion

- **Given the patient's long term SSRI use, suspicion for Serotonin Syndrome was raised based on the Hunter Criteria.**
- The patient was treated with IV Diazepam and supportive care, and symptoms resolved over the following 24 hours without the use of cyproheptadine.
- The patient was discharged home on the 3rd hospital day, with instructions to avoid metoclopramide in the future while on an SSRI.

Conclusion

- This case exemplifies the importance of understanding drug interactions as well as counseling patients on adverse effects of medications.
- Additionally, this case raises awareness to the rare but well-studied

References

1. Francescangeli J, Karamchandani K, Powell M, Bonavia A. The Serotonin Syndrome: From Molecular Mechanisms to Clinical Practice. International Journal of Molecular Sciences. 2019; 20(9):2288.
2. Dunkley EJ, Isbister GK, Sibbritt D, et al. The Hunter serotonin toxicity criteria: simple and accurate diagnostic decision rules for serotonin toxicity. QJM. 2003; 96(9):635-642.

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