

## ★ FIT Clinical Decision Making

### LOPERAMIDE INDUCED BRUGADA PATTERN

Poster Contributions  
Poster Hall, Hall A/B  
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**Background:** Drug-induced Brugada pattern is a rare occurrence. Loperamide is an  $\mu$ -opioid receptor agonist used to treat diarrhea that has been described to induce cardiac arrhythmias. It has been documented to cause QT prolongation and Torsades de Pointes through its effect on potassium channel.

**Case:** A 48-year-old woman with history of polysubstance abuse presented for evaluation of syncope, palpitations and generalized weakness. ROS was significant for a 2-week history of diarrhea for which she used loperamide 6-8 tablets a day. She had no prior syncope or family history of sudden cardiac death. Physical exam was significant for lethargy. Her EKG on admission was consistent with type 1 Brugada pattern on leads V1-V2; RBBB with QRSd 126 ms, 1st-degree AVB with PR interval 256 ms, RAD and QTc 584ms. Echocardiogram showed no structural abnormalities. CT Angiogram of coronary arteries showed normal coronaries. Urine drug screen was positive for opiates and benzodiazepines. Her loperamide level was found to be 69 ng/ml (reference range <5).

**Decision-making:** Given presence of Brugada pattern on initial EKG, there was consideration for ICD placement, however, once serum loperamide level became available, she was observed without intervention in the absence of sustained arrhythmia and improvement in QTc.

**Conclusion:** This case illustrates a rare presentation of Brugada pattern induced by Loperamide, which is an easily accessible medication with potentially lethal albeit sometimes reversible complications.

