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TITLE: DULOXETINE-INDUCED TAKOTSUBO CARDIOMYOPATHY: A CASE REPORT

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Abstract Type: Therapeutic Case Management

BACKGROUND: Takotsubo cardiomyopathy (TTC) is a cardiac syndrome with symptoms including left ventricular apical ballooning and chest pain. No specific cause has been elucidated but physical/emotional stress and/or excessive catecholamine levels may be a responsible etiology for this stress-induced cardiomyopathy. Although its effects are usually transient and most cases have a good prognosis, the initial presentation is similar to that of an acute myocardial infarction.

PATIENT-HISTORY: The patient is a 60 year old Hispanic female with a past medical history significant for hypothyroidism, type 2 diabetes mellitus, peripheral neuropathy, hypertension, s/p urinary tract infection, multiple hernia and uterine fibroid surgeries. The patient's social history was noncontributory. The patient was started on duloxetine 60 mg once daily for management of peripheral neuropathy and reportedly finishing a course of ciprofloxacin for treatment of a urinary tract infection (treatment dates unknown). On the first day of treatment with duloxetine, the patient began to feel lightheaded and nauseous, which worsened on the following day. On the third day of treatment, nonradiating left sided chest pain, 7/10 intensity, and diaphoresis developed. The patient was admitted to the hospital and thought to be having a myocardial infarction. EKG showed ST elevations and T wave inversions and the troponin level was 3.343 ng/ml (reference: <0.059 ng/ml). Cardiac catheterization showed clear coronary arteries, echocardiography showed apical akinesis and an ejection fraction of 30% and norepinephrine blood levels were 3492 pg/ml (reference: 70-750 pg/ml), consistent with a diagnosis of TTC. The patient was anticoagulated with heparin and received treatment for her concurrent disease states.

REVIEW OF LITERATURE: A MEDLINE search revealed no published case reports of duloxetine-induced TTC. As there are no specific diagnostic criteria for TTC, limited data exists regarding its epidemiology and it may be under reported. Duloxetine prescribing information warns against the concurrent use of a potent CYP1A2 inhibitor (ciprofloxacin), which may have further contributed to this adverse reaction.

CONCLUSION: In our case report, a temporal and causal relationship was observed between the initiation of duloxetine and the development of TTC. Clinicians should be cognizant that use of duloxetine may result in TTC.