

Abstract Form

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Project Title:	Takotsubo Syndrome: A Case Series of Twelve Patients

Research Category (please check one):

<input checked="" type="checkbox"/>	Original Research	<input type="checkbox"/>	Clinical Vignette	<input type="checkbox"/>	Quality Improvement	<input type="checkbox"/>	Medical Education Innovation
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Abstract

Introduction

Takotsubo syndrome was first described in 1990 and carries a clinical presentation like that of acute coronary syndrome and since has gained increased recognition. The onset is frequently triggered by emotional or physical stress resulting in a transient decrease in cardiac function. Some patients develop complications such as heart failure, arrhythmias, and cardiac arrest. Diagnosis is typically suspected in patients who may be having acute coronary syndrome. However coronary angiographic typically reveals normal or mild to moderate atherosclerosis with identification of left ventricular dysfunction. Management is typically with supportive therapy as it is generally a transient disorder. Most patients recover however a risk of in-hospital complications is similar to those with acute coronary syndrome. The left ventricular systolic function typically recovers within 1 to 4 weeks. We reviewed 12 patients who were found to have Takotsubo syndrome after suffering various physical and/or emotional insults.

Methods

IRB approval was obtained. Chart review was conducted on twelve patients. We established the diagnosis of Takotsubo syndrome using the InterTAK criteria.

Results

#	Age & Sex	Inciting Factor	Peak Troponin (ng/ml)	BNP (pg/ml)	Insult Ejection Fraction
	Angiogram	RecoveryTime to Recovery	Recovery Ejection Fraction		
TCM1	62, Female	Overdose	4.13 174	30-35% Yes Yes	2 years 55%
TCM2	45, Female	Myositis 2.57	75	20-25% Yes Yes	1 week 50-55%
TCM3	56, Female	Suicide Attempt	4.87 1275	35% Yes Yes	2 weeks 50-55%
TCM4	29, Male MVA	<0.05x2 14	20-25% No	Lost to Follow Up N/A	N/A
TCM5	42, Male Toxic Encephalopathy	<0.05 x3 1167	20-25% No	Yes	1 week 35-40%
TCM6	27, Male Overdose	N/A	185 35%	Yes Yes	2 weeks 60-65%
TCM7	64, Female	Acute Respiratory Failure	2.47	N/A 20%	Yes Yes 4 weeks 40-45%
TCM8	84 Female	Loss of consciousness	4.99	N/A 15%	Yes Yes 3 months 55%
TCM9	81, Female	Ground level fall	11.70 34	N/A Yes	Lost to Follow Up N/A N/A
TCM10	59, Female	MVA 3.93	N/A N/A	Yes Yes	1 month 60%
TCM11	75, Female	Syncopal Episode	3.51	N/A 30-35%	Yes Yes 2 weeks 50-55%
TCM12	63, Female	Acute Respiratory Failure	3.18 385	20% Yes	
	Lost to Follow Up	N/A N/A			

Conclusion

We demonstrate twelve cases with various causes and various risk factors resulting in Takotsubo syndrome. Four patients demonstrated prior history of psychiatric conditions including substance abuse, with two of them presenting as suicide attempts. The etiology of the disease was multifactorial as our patients often presented with multiple comorbidities combined with triggers consisting of syncopal episodes, ground-level falls, motor vehicle accidents, and acute respiratory failure. Two patients even developed Takotsubo syndrome postoperatively. The pathogenesis of the disease followed a pattern of insult that was difficult to predict. The trigger in the patient was not identified until a clinical finding was identified warranting further investigation.