

## **An Unusual Presentation of Takotsubo Cardiomyopathy in a Setting of Tension Pneumothorax**

Dr. Surender Mittal, Dr. Prakhar Garg, Dr. H. P Paliwal, Dr. Deepesh Agarwal,  
Dr. G. N. Saxena.

### **I. Introduction**

Apical ballooning syndrome (takotsubo cardiomyopathy, and broken heart syndrome.) is a unique reversible cardiomyopathy that is frequently precipitated by a stressful event. Most patients with stress cardiomyopathy present with chest pain, electrocardiographic abnormalities, elevated cardiac enzymes, and focal left ventricular wall motion abnormalities. It accounts for approximately 1 to 2% of all troponin proven acute coronary syndromes event.

The pathophysiology remains unknown, although catecholamine mediated myocardial stunning is the most favored explanation.

### **II. Case Report**

A 58yr old female patient was admitted in ICU of MGH with complaint of cough, heaviness in chest and fever for which she was evaluated in detail and diagnosed as a case of Bronchogenic Carcinoma. During observation we noted that pt developed fast progressive dyspnoea, diaphoresis and became cyanosed with marked tachycardia and BP went up to 240/120 with SPO<sub>2</sub> fall to 40% not improving even with 100% O<sub>2</sub> support. Clinically and radiologically she had developed Right Tension pneumothorax. ECG showed marked ST elevation. Trop T and CPK MB were positive. 2D Echo showed Anterior Wall Hypokinesia with decreased EF while CAG was normal. Subsequent serial ECGs were normal.

### **III. Discussion**

Takotsubo (TD) disease was first reported in 1990 and now is accepted worldwide as a distinct entity. TD should be considered in the differential diagnosis of Anterior MI, especially in elderly women. Although the prognosis is favourable, it can cause various complications especially during the early phase. Iga et al reported a case of reversible left ventricular dysfunction associated with pheochromocytoma in which the takotsubo appearance was first described, although they did not use the term takotsubo. In 1990, Sato et al first described this reversible cardiomyopathy as tako-tsubo-like left ventricular dysfunction; outside Japan, this phenomenon was called apical ballooning or stress cardiomyopathy.

### **IV. Conclusion**

The acute onset of clinical features, nature of underlying disease, sudden development of tension pneumothorax and exclusion of coronary artery disease with typical 2D Echo result proved our case to be a case of TakoTsubo Cardiomyopathy. Here the contributory factors were mechanical and physical stress.