A Case of Takotsubo Cardiomyopathy

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1. Background

Takotsubo cardiomyopathy also called apical ballooning syndrome, or STRESS INDUCED CARDIOMYOPATHY, occurs typically in older women after sudden intense emotional or physical stress.

The ventricle shows global ventricular dilation with basal contraction, forming the shape of the narrow-necked jar (takotsubo) used in Japan to trap octopi. Presentations include pulmonary edema, hypotension, and chest pain with Electrocardiogram changes mimicking an acute infarction

2. Case History

A 43 year old female patient presented with history of swelling in front of the neck since 5 years. She was taking thyroxine supplementation for hypothyroidism. There was no past history of diabetes mellitus, hypertension, coronary artery disease and other comorbidities. She was diagnosed as having multinodular goitre and was planned for total thyroidectomy. She underwent total thyroidectomy following which she developed sudden onset of retrosternal chest pain associated with palpitations on the first postoperative day.

2.1 Clinical Examination

BP=100/60mmHg, CVS-S1,S2+, No murmurs

RS-B/L Basal crepitations+

2.2 Investigations

CBP, RBS, RFT, thyroid profile were normal. ECG: ST elevations in leads I, aVL, V3 TO V6 2D Echo

Before surgery: Good LV function; EF 60%

After surgery: Hypokineti apex, apical ballooning, Moderate to severe LV dysfunction, EF 34% Cardiac markers were mildly elevated.

Coronary angiogram was normal.

3. Discussion

- This acute cardiomyopathy may result from intense sympathetic activation with the heterogeneity of myocardial autonomic innervation, diffuse microvascular spasm, and/or direct catecholamine toxicity.
- Coronary angiography may be required to rule out acute coronary occlusion.
- Treatment includes supportive, conservative therapy and standard heart failure regimen for Left Ventricular Dysfunction.
- Prognosis is generally good.
4. Treatment

She was treated for heart failure with diuretics, Angiotensin Converting Enzyme inhibitors, and beta-blockers. ST elevations resolved in 3 days and her left ventricular function improved over a period of 4 weeks.

References