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CORRESPONDENCE

Takotsubo cardiomyopathy precipitated by subarachnoid hemorrhage

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'Takotsubo cardiomyopathy' (TCM) or 'stress cardiomyopathy' or 'broken-heart syndrome' mimics acute coronary syndrome (ACS). It is characterized by reversible left ventricular apical ballooning in the absence of significant coronary artery disease on angiography, and is commonly seen in elderly postmenopausal women. The triggering factor seems to be elevated plasma catecholamine levels due to physical or emotional stress, leading to coronary spasm, direct myocardial toxicity or microvascular impairment.[1]

A 79-year-old known hypertensive female patient was admitted with complaints of headache, sweating and multiple episodes of vomiting followed by unconsciousness. There was no history of chest pain. On examination, patient was $E_1V_1M_3$ (Glasgow Coma Scale), had a heart rate of 86/min, blood pressure of 210/110 mmHg, respiratory rate of 16/min and SpO_2 of 100% (on room air). ECG revealed ST-segment elevation and Q waves in V_{1-3} and inverted-T waves in inferolateral leads. Cardiac enzymes were mildly raised with troponin-T at 0.253 ng/ml and creatinine kinase-MB at 39 U/L. Serum electrolytes were within normal limits. Non-contrast CT-head showed subarachnoid hemorrhage with ventricular dilatation. CT-angiography brain revealed ruptured posterior communicating artery (PCOM) aneurysm. Patient was intubated on emergency basis and put on ventilator followed by external ventricular drain insertion. Two-dimensional echocardiogram done on the day of admission showed left ventricular ejection fraction of 25-30% with segmental akinesia involving mid-distal inter-ventricular septum, apex, mid-distal lateral wall, anterior wall, posterior wall and mid-distal inferior wall. Coronary CT-angiography was done which revealed normal coronaries. A diagnosis of TCM was made and supportive treatment was started with continued mechanical ventilation, sodium nitroprusside infusion to control the blood pressure and intravenous furosemide for left ventricular dysfunction. Stent-assisted coiling of PCOM aneurysm was done on the following day after ensuring that the patient had stable hemodynamic parameters. Elective tracheostomy was done two days post operatively in view of anticipated prolonged intubation. Patient was gradually weaned off from mechanical ventilation over the following week and put on supplemental oxygen via T-piece. At the time of discharge from the intensive care unit, the patient was hemodynamically stable. She had a normal ECG and persistent regional wall motion abnormalities with left ventricular ejection fraction of 50% on echocardiogram. A follow-up echocardiogram after four weeks was advised.

Takotsubo cardiomyopathy is the final diagnosis in approximately 2% of acute coronary syndrome presentations.[2] In the absence of a single diagnostic test, the Mayo Clinic diagnostic criteria can be used to differentiate TCM from its main differentials, namely ACS, myocarditis and phaeochromocytoma.[3] Our patient fulfilled all these criteria which are: transient left ventricular hypokinesia or dyskinesia extending beyond a single epicardial vascular distribution, absence of obstructive coronary disease, new ECG changes with modest elevation in cardiac enzymes and

absence of pheochromocytoma and myocarditis.

Prognosis is excellent with complete resolution in all reported cases, which emphasizes the importance of timely diagnosis and appropriate management.[4] The aim of treatment should be to maintain cardiac function and prevent complications and thus comprises of standard supportive measures.

TCM has important implications, because of the resemblance of its clinical presentation with that of an acute coronary syndrome. Increased awareness is likely to result in this rare syndrome being diagnosed more frequently and thus preventing mortality due to its initial complications.

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Self-knotting of a nasogastric tube

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Nasogastric tubes (NGT) are commonly used for decompression of stomach and for feeding critically ill patients. This simple and blind procedure can rarely result in knotting of NGT leading to serious complications like respiratory distress, severe laryngeal injury, nasophayngeal bleed and tracheoesophageal puncture.[1] We describe here a case of self- knotting of a NGT.

A sixty year old female posted for elective laparoscopic cholecystectomy revealed distended stomach on laparoscopy, obscuring the safe dissection of gall bladder. A 16 F NGT was inserted through the right nostril, stomach was deflated and tube was fixed at 55 cm mark at the nostril. Post operatively, attempts to withdraw the NGT beyond the 50 cm mark were met with resistance. Attempt to remove NGT after extubation also failed. Laryngoscopy revealed the tube going into the oesophagus which was then pulled out with little force. Examination of the NGT revealed a knot at the distal end. (Figure 1) The knot caused laceration of nasopharynx during removal, resulting in bleeding for which nasal packing was done. Patient was re-intubated for fear of aspiration. She remained on ventilator for 6-8 hours after which extubation was done. Nasal pack was removed after 48 hours.

Stomach deflation by NGT is a common practice during surgery. However it can cause unexpected complications especially tracheo-pulmonary, ranging from 0.3% to 8% and even a mortality of around 0.3%.[2] One of the rare complications associated with insertion of a NGT is knotting and impaction of the distal end.[3] The main reason for knot formation is that the tube can coil back on itself when an excess length is introduced resulting in super coiling and concatenate formation.[2] Risk factors for knotting include smaller diameter tubes,[4] patients with a small stomach,[4] insertion deep into the stomach and interference by an endotracheal tube in an intubated patient.[2] The knot