Tako-tsubo cardiomyopathy following gastroscopy: a complication to consider

A 69-year-old woman, who was a former smoker, presented with dysphagia to solids and liquids and epigastric pain over a period of 8 weeks. An upper gastrointestinal endoscopy was performed, without incident, and revealed gastric atrophy in the antrum (Fig. 1). Biopsies were taken according to the Sydney protocol. After the procedure the patient suffered from chest pain. Electrocardiogram revealed T-wave inversion in precordial leads DI-AVL and V2-V5 (Fig. 2). Troponin level was also elevated (0.53 ng/ml). Urgent coronary angiography was performed and revealed entirely normal coronary vasculature. Left ventriculography demonstrated akinesis of the mid-ventricular anterior segment (Video 1).

Echocardiography showed an ejection fraction of 60% and confirmed the akinesis of the mid-ventricular anterior segment. The patient’s symptoms improved with aspirin and a beta blocker. There were no complications and the patient was discharged after 72 hours, without any symptoms. A diagnosis of tako-tsubo cardiomyopathy (TTC) following gastroscopy was made based on the transient and completely reversible wall motion abnormalities and chest pain syndrome without occlusive coronary disease. TTC is a reversible cardiomyopathy that typically occurs in women over the age of 50 years and can mimic an acute coronary syndrome [1]. There are few reports of TTC after gastrointestinal procedures (oral-contrast radiology and colonoscopy) [2]. It has been suggested that catecholamines may play a role in triggering TTC because patients often have preceding emotional or physical stress [3]. Overall the long-term survival is the same as that of the age-matched population and recurrence is possible [4].

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Fig. 1 Gastrointestinal endoscopy revealed gastric atrophy in the antrum.

Fig. 2 Electrocardiogram: T-wave inversion in leads DI-AVL and V2-V5.

Fig. 3 Ventriculography. a Ventricular diastole. b Ventricular systole. Akinesis in the mid-ventricular anterior segment with contractility preserved in the apical and basal segments of the left ventricle. c Quantitative analysis of the contractility, showing akinesis in the mid-ventricular anterior segment.
Competing interests

None

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Video 1  Tako-tsubo cardiomyopathy following gastroscopy.