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Subarachnoid haemorrhage mimicking acute myocardial infarction

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DESCRIPTION

A 54-year-old obese woman with a history of hypertension dialed ambulance service for headache and vomiting. EKG found diffuse ST segment elevation (figure 1A). Prehospital management consisted of intravenous aspirin, oral antiplatelet therapy (prasugrel) and subcutaneous low-molecular-weight heparin. She was transferred in our intensive care unit. Echocardiography showed impaired left ventricular ejection fraction (30%) with apical dysfunction but preserved basal function (figure 1B–D). Coronary angiography showed normal epicardial coronary arteries (figure 1E,F); left ventriculography showed systolic ballooning of the apex and hypercontraction of the basal segment (figure 1G,H). The patient presented suddenly consciousness disturbances then coma requiring ventilatory support. Encephalic CT scan showed diffuse subarachnoid haemorrhage with mass effect on the brain stem in the posterior fossa (figure 1I,J). The evolution was rapidly unfavourable and the patient died in 1 h. Myocardial dysfunction without coronary involvement may occur in acute cerebral diseases. The most encountered form is the left ventricular apical ballooning, as in the present case, named Takotsubo cardiomyopathy.¹ Direct myocyte injury-mediated myocardial

contractile dysfunction is likely to be the consequence of an adrenergic storm in the setting of neurologic disorders.² This cardiomyopathy may mimic an acute coronary syndrome (ACS) with precordial pain, various changes of the ST segment, T wave or QTc interval on electrocardiogram, and raised cardiac enzymes. In the present case, ST segment elevation was found in the absence of chest pain and without mirror abnormalities. In the absence of a clinical context of ACS, potentially harmful antiplatelet and anticoagulation therapies should be delayed until coronary artery disease involvement has been proven.

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Competing interests None.

Patient consent Obtained.

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Figure 1 ST segment elevation in the antero-lateral leads (A), left ventricular apical dysfunction (B and C, LV end diastolic and end systolic volumes in apical four-chamber views), decreased LV apical longitudinal strain (D, bull eye of regional LV strains), normal coronary arteries (E right coronary artery, F left coronary artery), left systolic ballooning of the apex and hypercontraction of the basal segments at ventriculography (G and H, white arrows), and diffuse subarachnoid haemorrhage with mass effect on the brain stem in the posterior fossa (I and J, black arrows).