

Case Report

Recurrence of esophageal cancer presents as transient ischemic attack

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Abstract

A 43-year-old man presented with recurrent transient syncope was admitted under impression of transient ischemia attack. Six months earlier, he had been diagnosed with esophageal cancer. He underwent esophagogastrectomy and recovered uneventfully. Echocardiogram showed an ill-defined infiltrative mass over the lateral wall of the left ventricle and multiple intraventricular mural thrombi. Subsequent computed tomography scan of the chest demonstrated hypo-dense myocardium infiltration with local thickening. The appearance of the myocardium was highly characteristic of transmural cardiac metastasis. The patient received palliative therapy and died 1 month after this admission.

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1. Introduction

Esophageal cancer accounts for 2% of the total incidence rate of tumor development.¹ Esophageal cancer usually invades the surrounding region of the esophagus and local lymph nodes and is diagnosed in extended stage with presentation of dysphagia. The most common metastasis site is the liver, with approximately 57% frequency.² However, solid cardiac metastasis of esophageal cancer is relatively rare. We reported a case of esophageal cancer with cardiac metastasis and extensive thrombus formation that was diagnosed with presentation of recurrent transient syncope.

2. Case report

A 43-year-old man was admitted due to transient syncope in the past 1 month. He had a history of esophageal cancer, with initial presentation of dysphagia 6 months before. Because of absent evidence of distant metastasis, he underwent right transthoracic subtotal esophagectomy with systemic lymphadenectomy. A gastric tube was lifted retrosternally up into the left side of the neck and anastomosed to the cervical esophagus for reconstruction. The surgical margin was clear, and the dissected lymph nodes were free from metastasis. Histopathological finding of the excised specimen resulted in a diagnosis of well-differentiated squamous cell carcinoma staged as pT3N0M0, stage IIA. The patient recovered eventfully and received adjuvant chemo-radiation therapy. Two syncope episodes occurred before this admission. They occurred suddenly without any predisposing signs and combined with temporary aphasia, and then the patient recovered totally without any neurological deficit.

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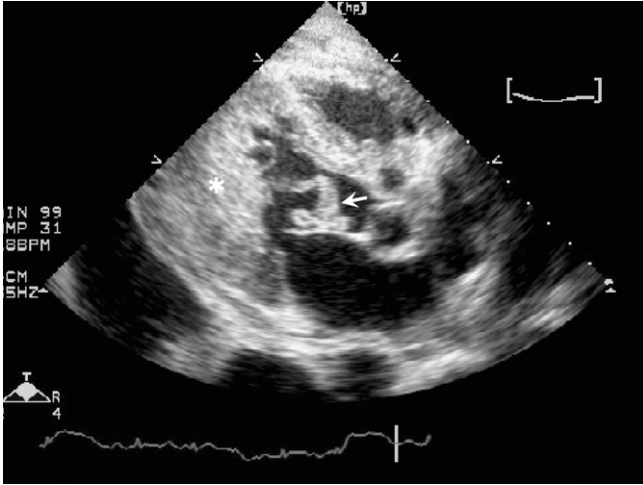


Fig. 1. Echocardiogram showed an infiltrative heterogeneous mass (*) with a mushroom-like thrombus attached in the apical-lateral wall of the myocardium (arrow).

On examination, the patient's blood pressure was 120/85 mmHg, with a pulse rate of 100 beats per minute and respiratory rate of 18 times per minute. Cardiac auscultation revealed a grade II/VI systolic murmur over the right sternal border. Lung auscultation demonstrated clear breathing sound over bilateral lung fields. Electrocardiogram revealed normal sinus rhythm without significant ST-T segment change. The chest radiograph did not show significant change compared with 6 months before. The brain computed tomography (CT) scan and carotid artery duplex sonogram did not demonstrate significant finding. However, transthoracic echocardiography showed marked infiltrative heterogeneous thickening of myocardial wall, especially the inferolateral wall of the left ventricle (LV). In addition, a highly mobile mass manifesting as a long stick mushroom was found, and it intermittently prolapsed into the LV outflow tract with potential for embolic

episodes (Fig. 1). Subsequent CT scan of chest and abdomen compared with previous studies demonstrated local recurrence of esophageal cancer without liver or lung metastasis. However, we found remarkable thickening of myocardial wall with soft tissue density (Fig. 2), suggesting haemostatic intracardiac metastasis of the esophageal cancer with distal thromboembolism, which presented as transient ischemic attack of the brain. The patient received supportive therapy with anticoagulation therapy only due to end stage of underlying malignancy and died 1 month later after diagnosis of cardiac involvement.

3. Discussion

Solid cardiac metastasis of esophageal cancer is relative rare. German et al. observed the autopsies of 45 patients who died of esophageal cancer; none had metastasis to the heart.³ Maeda et al. reported an asymptomatic solitary hematopoietic myocardial metastasis from esophageal cancer.⁴ This is the first report of transmural cardiac metastasis from esophageal cancer with initial presentation of intermittent transient ischemic attack event. Cerebral embolism cause from other cardiac metastatic tumors has been published before.^{5,6} Anti-coagulation therapy or surgical thromboectomy might be helpful for preventing thromboembolic events. The prognosis of cardiac metastasis is usually poor due to terminal stage of the underlying malignancy. Chemotherapy and radiotherapy have been reported used as palliative therapy for cardiac metastasis from esophageal cancer,⁴ but neither chemotherapy nor radiotherapy was effective against cardiac metastasis in that case. We have reported this case to alert physicians that cardiac metastasis should be considered if patients with esophageal cancer present with transient ischemic attack. In conclusion, despite the low incidence rate, transmural cardiac metastasis should be still included in the differential diagnosis of patients with esophageal cancer who present with syncope and transient ischemic attack.

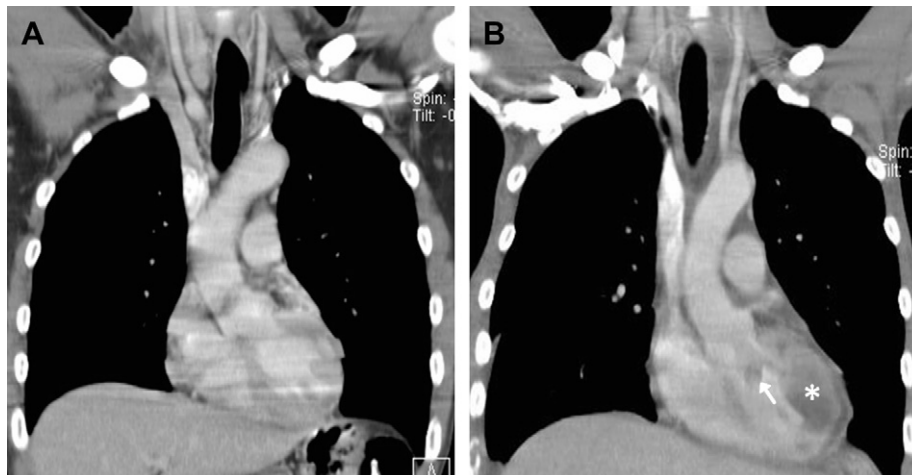


Fig. 2. Comparison of chest computed tomography (A) 6 months before and (B) during this admission revealed a newly formed soft tissue infiltration in the myocardium (*) with suspected thrombus formation in the left ventricle outflow tract (arrow).

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