

Cardiogenic Dysphagia: An Unusual Case

Sir,

A 90-year-old woman with a past medical history of hypertension and thyroidectomy for benign goiter, presented to the hospital with dysphagia and sensation of food sticking in her chest. It was not associated with any odynophagia, chest pain, or dyspnea. The family reported that the patient had acute change in mental status over the past 1 week. Home medications included levothyroxine, hydrochlorothiazide, and multivitamins. At presentation, the vital signs were stable and physical examination had no neck mass, normal heart sounds and mild inspiratory rales. Electrocardiogram was sinus rhythm with mild left ventricular hypertrophy, troponins were negative, hematological/biochemical laboratory results were normal and chest X-ray (CXR) showed moderate cardiomegaly. Echocardiogram was performed which showed normal ejection fraction and a moderate 1.9 cm pericardial effusion but no evidence of tamponade effect. Computed tomography (CT) neck was normal and CT chest confirmed cardiomegaly pressing against the esophagus [Figure 1]. Thyroid stimulating hormone (TSH) level came back elevated at 71 mIU/L. Endocrinology started intravenous thyroxine and patient's symptoms and mental condition improved. Within 1 week of therapy, TSH level decreased to 19 mIU/L and follow-up imaging revealed decreased effusion and cardiomegaly. The probable cause of her dysphagia was cardiomegaly secondary to severe hypothyroidism as a result of inadequate thyroxine dosing or noncompliance.



Figure 1: Computed tomography chest showing moderate to severe cardiomegaly

Hypothyroidism occurs in up to 6% patients older than 65 years, and is commonly secondary to autoimmune thyroiditis or previously treated hyperthyroidism.^[1] Apart from the classical features of hypothyroidism, the elderly patients may have depression, impairment in cognitive function, memory or language problems as initial presenting symptoms, which could be attributed to aging per se and easily overlooked.^[1,2] Additionally, pericardial effusion may occur in 37% of patients with overt and 9% patients with subclinical hypothyroidism, even in the absence of myxedema.^[3] Gastrointestinal manifestations of hypothyroidism primarily include motility problems which are reversible with levothyroxine replacement.^[4] Dysphagia may occur due to decreased esophageal peristalsis, esophagitis, hiatal hernia, or presence of lingual thyroid pressing against the esophagus.^[4]

Our patient was noncompliant with her thyroxine and presented with classical features of hypothyroidism, but not in myxedema emergency. Her CXR raised the concern about pericardial effusion. Echocardiogram ruled out tamponade, and CT chest helped establish cardiomegaly as the cause of her dysphagia due to pressure effect. Dysphagia due to generalized decrease in motility should cause pure dysphagia and not food sticking in the chest. In the present case, the patient perceived sticking of food as probably secondary to mechanical strain on the esophagus by enlarging pericardial effusion. As effusion resolved, the patient's dysphagia also improved.

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