A 70-year-old woman was admitted to our emergency department with progressive dyspnea and chest pain. According to her medical history, she had undergone single vessel coronary artery bypass graft surgery 1.5 months ago. Physical examination showed that the blood pressure was 89/61 mmHg, oxygen saturation was 90%-95%, heart rate was 135 bpm, and rhythm was regular. Serial electrocardiographic (ECG) records showed dynamic changes on lateral derivations. A dissection-like image on the ascending aorta was observed on transthoracic echocardiographic parasternal long-axis view (Figure 1A). Because of obesity, echogenicity in the patient was suboptimal; therefore, an emergency transesophageal echocardiography (TEE) was performed for suspected ascending aortic dissection. However, there was no sign of aortic dissection (Figure 1B). On TEE short-axis view, fluid accumulation was observed between the aortic root and left atrium (Figure 1C, D). Multi-slice chest computed tomography findings were similar to that of TEE imaging. In addition, the collected fluid was pinched off the left main coronary artery (Figure 1E). After surgical drainage of the fluid, symptoms were resolved and dynamic ECG changes on lateral derivations disappeared.

Type A aortic dissection is a rare but potentially life-threatening disease. The prognosis is determined by an accurate and immediate diagnosis. Aortic dissection can masquerade as another disease, and other diseases such as pericardial effusion may look like aortic dissection, similar to our case. Pericardial effusion should be kept in mind for the differential diagnosis of aortic dissection and coronary ischemia.

Figure 1. Transthoracic parasternal long-axis view (A) showing dissection-like images (asterisk) on the ascending aorta. Aortic dilatation and dissection were not observed on transesophageal modified long-axis view (B). On transesophageal short-axis (C) and colored (D) views, localized fluid accumulation between the aorta, left atrium, and main pulmonary artery was observed. Multi-slice computed tomography image (E) demonstrated the collected fluid pinched off the left main coronary artery.