






# A case of malignant pericardial effusion secondary to gastric adenocarcinoma

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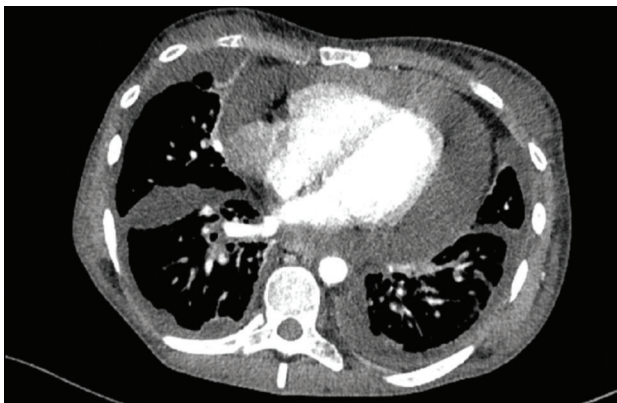
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**Introduction:** Malignant pericardial effusion is a critical and often life-threatening condition that can lead to development of cardiac tamponade, hemodynamic instability, and if untreated, death<sup>1</sup>.

**Case report:** We report the case of a 32-year-old female who presented to the Emergency Department with a two-week history of dry cough, dyspnea on exertion, loss of appetite, and food aversion. Physical examination revealed multiple palpable lymph nodes and absent breath sounds over the lower half of the left lung. Laboratory tests showed mild microcytic anemia. The patient was hospitalized in the Department of Pulmonology, where tumor markers, including CA 19-9, CA 72-4, PIVKA-II, and CA 125, were positive. An axillary lymph node excision was performed, and CT of the thorax, abdomen, and pelvis revealed bilateral pleural effusions, pericardial effusion, and free abdominal fluid. Echocardiography confirmed minimal pericardial effusion. The patient underwent multiple left-sided thoracocenteses, both during hospitalization and outpatient follow-up. Pathohistology of the excised lymph

node revealed signet ring cells, leading to an esophagogastroduodenoscopy, which confirmed gastric adenocarcinoma through a gastric ulcer biopsy. She was later hospitalized in the Department of Oncology, where staging confirmed disseminated disease, and she began chemotherapy and radiotherapy. After initial relief, the patient was readmitted two days post-discharge with dyspnea. A thoracic CT showed extensive pericardial effusion (**Figure 1**), and echocardiography revealed signs of impending cardiac tamponade. Emergent pericardiocentesis removed 900 ml of hemorrhagic fluid. Chemotherapy and supportive measures were continued, but within a month, another pericardiocentesis removed 700 ml of fluid. Despite interventions, the patient died months later due to disease progression.

**Conclusion:** Any cancer can metastasize to the pericardium, causing effusion through increased vascular permeability or lymphatic obstruction, with breast, lung, and Hodgkin lymphoma being the most common culprits<sup>2</sup>. Malignant pericardial effusion in advanced gastric adenocarcinoma has a poor prognosis despite timely interventions, with survival remaining limited in widespread disease.



**FIGURE 1.** Thoracic CT showing extensive pericardial effusion.

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## LITERATURE

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