A Pneumopericardium Caused by Gastric Ulcer Perforation

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A 72-year-old man with a history of chemoradiation therapy for lung cancer and with known gastric ulcer was admitted due to chest pain. On day 6, a chest X-ray showed air around the heart (Picture 1) and computed tomography showed a fistula between the pericardium and the gastric ulcer (Picture 2). A diagnosis of cardiac tamponade caused by a pneumopericardium was made, and a drainage tube was inserted into the pericardium (Picture 3). Although the fistula had closed, later it was found to be patent. The patient ultimately died due to heart failure. Pneumopericardium, the presence of air in the pericardial space, was first described by Bricketeau (1). This rare condition is caused by trauma, positive pressure mechanical ventilation (2) and esophago-pericardial fistulas. In our case, the patient’s past history of radiation therapy may have compromised the strength of the pericardium and gastric wall, leading to the development of an intractable fistula and pneumopericardium although the direct cause was a gastric ulcer.

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References