A 52-year-old man, who received an immunosuppression regimen as treatment for biopsy-proven hepatocellular carcinoma from the time of orthotopic liver transplantation 2 years previously, suffered from chest pain for 3 months. Metastatic foci in both lungs were found and chemotherapy was applied. Eleven weeks later, tachypnea and general edema developed. CT scan revealed hydropneumopericardium (Picture A, B, white arrows), right lower lobe pneumonia (Picture A, B, black arrows), progress of metastatic foci (Picture A, B, white arrowheads) with pleural effusion. This patient had an unrelenting, deteriorating clinical course and died shortly thereafter. The causes of pneumopericardium include 5 broad categories: trauma, development secondary to procedures, fistulization from adjacent structures, barotraumas, and pericardial infections (1). In the present patient with lung metastatic foci and pneumonia, the mechanism is likely the purulent pericarditis infected by gas-forming bacteria, migrating through airway wall impaired by the invasion of metastatic carcinoma and the erosion of severe inflammation secondary to immunosuppression therapy. Spiral CT is a helpful tool for the detection of such complications.

Reference