中文題目：於末期腎病變患者中以血性心包膜積液為肺癌之最初表現

英文題目：Bloody pericardial effusion as first manifestation of lung cancer in ESRD patient

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Introduction

Diagnosis of bloody pericardial effusion remained challenging because of bloody pericardial effusion results from a wide range of etiologies including iatrogenic, infection, autoimmune disease, uremia, myocardial infarction, trauma, metabolic and endocrine causes, as well as malignancy. We illustrated a 75-year-old male patient of end stage renal disease presented with bloody pericardial effusion and he was diagnosed as adenocarcinoma of lung after complete diagnosis study.

Case Presentation

A 75-year-old male patient presented with fever and abdominal pain in the upper right quadrant for two days. He has the history of end stage renal disease secondary to chronic glomerulonephritis on three-times-weekly hemodialysis and coronary artery disease. On physical examination, there was tenderness in the right upper quadrant of the abdomen with positive Murphy's sign, but without rebound tenderness or abdominal rigidity. Pertinent laboratory studies showed normal white cell count (WBC: 6700/uL) with mild left shift (neutrophil:75.6% and lymphocyte:8.7%), high C-reactive protein (CRP: 8.88mg/dL), and normal bilirubin level (total bilirubin:1.12 mg/dL). With the exceptions of gamma glutamyl transpeptidase (γ -GT), which were slightly elevated with values of 126.81 IU/L, respectively, the other results of liver function tests were normal (AST:14U/L and ALT:19U/L). Computed tomography scan of the abdomen with contrast revealed edematous gallbladder with wall thickening (Figure 1, red arrow) and he was admitted with preliminary diagnosis of acute cholecystitis. His fever and abdominal pain was relieved after empiric antibiotic prescribed. On the 6th day of admission, he developed acute delirium and short of breath. Chest plain film revealed acute pulmonary edema and cardiomegaly. We had tried to reduce his dry weight and increased ultrafiltration volume. Echocardiography demonstrated moderate pericardial effusion and pericardiocentesis was performed. Total 150ml hemorrhagic fluid was removed (Figure 2). Fluid analysis contained 6.24 g/dl of total protein, LDH: 781 U/L, pH 8.0 and glucose 96mg/dl. Cytological

analysis showed 3850 leucocytes/ml^3 (50% neutrophils, 39% lymphocytes) and 2072026 red blood cell/ ml^3. The daily drainage amount of pig-tail was more than 150ml and negative bacterial culture had raised the suspicion of occult malignancies. Contrast enhanced chest computed tomography revealed a heterogeneous soft tissue mass about 3.9cm in diameter in right lower lung field (Figure 3, red arrow). He underwent video-assisted thoracoscopy with the creation of a pericardial window and lung biopsy. The biopsy of lung disclosed poor differentiated adenocarcinoma and molecular analysis of the resected lung demonstrated an EGFR point mutation (L858R) in exon 21. He discharged on 41th day and he was commenced on target therapy with Gefitinib, however due to toxicity this was discontinued after one year. He received palliative care with weekly home visits and he remain in excellent condition.

Discussion

Although bloody pericardial effusion is a common complication of malignancy, it is rarely the initial manifestation. Pericardial effusion is also a known clinical manifestation of chronic kidney disease and two entities unique to patients with kidney disease, namely uremic and dialysis-associated pericarditis.[1] On the other hand, the different types of uremic toxins may exert antagonistic interactions of pro-inflammatory and immunosuppressive responses, leading to increased risks of infections and malignancy[1] which are the most common causes of bloody pericardial effusion in general population. Our case reinforced the importance of malignant pericardial effusion should be a differential diagnosis in patient of end stage renal disease with refractory pericardial effusion.

References

1. Renfrew R, Buselmeier T, Kjellstrand CM. Pericarditis and renal failure. Annu Rev Med. 1980;31:345–360
2. Wilson WEC, Kirkpatrick CH, Talmage DW. Suppression of immunologic responsiveness in uraemia. Ann Intern Med. 1965;62:1. Accessed 1 Jan 1965.

Figure 1

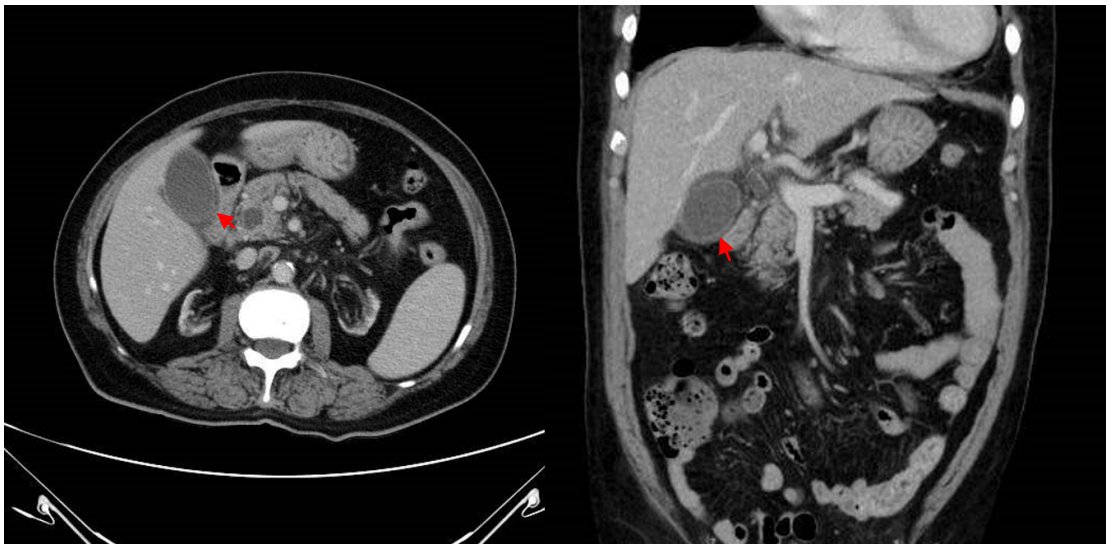

Figure 2

Figure 3