

中文題目：罕見病例報告關於血液透析引起的心包膜炎和大量心包膜積液，且進展惡化導致危及生命的心包膜填塞。

英文題目：A rare case report of hemodialysis related pericarditis and massive pericardial effusion that cause critical status of cardiac tamponade

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Abstract:

Mrs. Liu, a 53-year-old woman with end stage renal disease on maintenance hemodialysis QW246 at Yang-ming hospital since 2004, congestive heart failure with moderately severe mitral valve regurgitation, was admitted due to exertional dyspnea for 2 months.

She was in her usual status until 2 months ago when she became aware of dyspnea. Dyspnea was progressive and was aggravated by exertion (walking < 100m, lifting heavy stuff), accompanied with intermittent chest tightness. Mild orthopnea was also mentioned, with the need to head up for sleeping. There was also lower limbs pitting edema that become refractory even though she underwent intensive hemodialysis. Besides, the patient had common cold a month ago, with symptoms of diarrhea, dry cough, and poor appetite. The symptoms relieved except dry cough which was still noted now. The chest x-ray for regular follow-up at Yang-ming hospital showed marked cardiomegaly and pericardial effusion. The symptoms were still bothered. There was no fever, chills, weight loss, night sweat, recent trauma, radiation exposure, skin rash, arthralgia, medication or diet incompliance. Due to progressive symptoms, she was transferred to our Cardiovascular out-patient department.

At our Cardiovascular out-patient department, cardiac echo revealed massive amount of pericardial effusion (post. effusion thickness in systolic phase:2.17 cm) with diastolic RA collapse, adequate global LV systolic and diastolic performance, and moderately severe MR. Elevated level of BUN(61 mg/dl) and Creatinine (10.22mg/dl) were noted. She was admitted with dialysis related pericardial effusion that cause cardiac tamponade.

After admission, intensification of hemodialysis was arranged but she didn't tolerate that procedure owe to chest tightness. Follow-up of thyroid function and autoimmune marker was within normal limit. Besides, tumor marker was within normal limit as well. Due to poor treatment effect of intensification of hemodialysis, we consulted cardiovascular man for pericardiocentesis of relief of massive pericardial effusion. However, difficult approach of post-cardiac pericardial effusion was considered by cardiovascular man. We contact cardiovascular surgeon for Pericardio-Pleural window. Thereafter, her symptom was gradually improving after

the drainage of massive pericardial effusion and intensive hemodialysis were kept going. Pericardial effusion analysis disclosed exudate with predominant PMN cells. Final bacteria, mycobacteria and fungus culture were not yielded. Pericardial cytology was negative for malignancy. Final pathology also reported no tumor or granuloma. Final diagnosis was dialysis related pericarditis and pericardial effusion complicated with cardiac tamponade after infectious, non-infectious cause including neoplasm, cardiac, trauma, radiation and drugs was excluded.

Discussion:

Pericarditis and pericardial effusions are not uncommon in patients with end-stage renal disease (ESRD). Etiologies include those found in the general population along with two entities unique to patients with kidney disease, namely uremic and dialysis-associated pericarditis. Uremic pericarditis has been arbitrarily defined as pericarditis that develops before or within 8 weeks of initiation of dialysis, while dialysis-associated pericarditis is used to define pericarditis in patients on dialysis for more than 8 weeks. Retention of uremic toxins is likely a major contributor to uremic and dialysis-associated pericarditis although their exact cause is not known. Indeed, whether they are actually distinct entities is uncertain. Symptoms and signs of pericarditis differ in patients with ESRD compared to the non-ESRD population. Management has not been well studied and ranges from initiation and intensification of dialysis to percutaneous or open drainage for large effusions. This review covers the literature on this topic but emphasizes that most of the data are old and of relatively poor quality, and therefore additional research is needed.

References:

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