

## 혈액 투석 환자에게서 감염된 가성대동맥류를 동반한 대동맥염의 발생과 파열

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김기대, 문강륜, 김예진, 정사라, 최대은, 나기량, 이강욱, 신영태

### Aortitis with Infected Pseudoaneurysm Formation and Rupture in Hemodialysis Patient

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**Introduction:** Infection of vascular access site is major source of bacterial infection in ESRD patients on chronic hemodialysis and is also major cause of death in ESRD patients. Necrotizing aortitis is a very rare and life-threatening complication of local or generalized bacterial infections in chronic hemodialysis patients. Staphylococcus aureus accounts for the majority of Gram-positive infections. However, Gram-negative bacilli, such as Salmonella and proteus species and Escherichia coli, have been described. Recently we experienced an ESRD patient on chronic hemodialysis complicated with aortitis and pseudoaneurysm rupture.

**Case:** A 60-year-old male came to our hospital with dyspnea and fever. He had type 2 DM and hypertension for 20yrs. He got CAPD due to diabetic ESRD 4 yrs ago and was transferred to hemodialysis 2 yrs ago due to recurrent PD catheter related infection and peritonitis. One month ago, his AV fistula did not function anymore and he got AV graft surgery on his left forearm. Blood pressure was 171/93 mmHg, heart rate 92/min, respiratory rate 20/min, body temperature 38.0°C on admission. His consciousness was clear but complained of dyspnea. Painful redness and pus discharge on the AV graft site were observed. The complete blood counts showed hemoglobin 8.4 g/dl, hematocrit 25.6% WBC 6,200 cells/ $\mu$ L, and platelet 264,000/ $\mu$ L. The results of blood chemistry were as follows: AST 14 IU/L, ALT 11 IU/L, total protein 6.4 g/dL, albumin 3.1 g/dL, BUN 13.9 mg/dL, creatinine 5.59 mg/dL. Serum sodium, potassium and chloride were 138 mEq/L, 3.3 and 98 mEq/L. C-reactive protein was 7.2 mg/dL. On arterial blood gas analysis, pH was 7.51, PaO<sub>2</sub> 64 mmHg, PaCO<sub>2</sub> 32 mmHg, bicarbonate 25.5 mEq/L and O<sub>2</sub> saturation 94%. Chest X-ray and CT revealed massive amount of Lt. pleural effusion, collapsed left lung and 4 cm sized pseudoaneurysm of aortic arch. The color of pleural effusion was bloody and RBC 11,000 cells/ $m^3$ , WBC 500 cells/ $m^3$ , protein 4.3 g/dL, LDH 1,130 IU/L, hematocrit 1%. Effusion drainage via chest catheter was performed. On 3rd hospital day, hypovolemic shock appeared suddenly and did not recover in spite of massive blood transfusion and fluid supplement. Finally he died from massive intrathoracic hemorrhage due to rupture of aortic pseudoaneurysm. Staphylococcus aureus was grown in his blood culture.

**Key Words:** 대동맥염, 가성대동맥류, 혈액 투석

Aortitis, Pseudoaneurysm, Hemodialysis